Federal Lands Highway Program
Park Roads and Parkways
Revised Funding and Prioritization Procedures

Table of Contents

Table of Contents (Cont.)

Figures

Tables

I. Executive Summary

The Federal Lands Highway Program (FLHP), for Park Roads and Parkways (PRP) is jointly administered by the National Park Service (NPS) and the Federal Highway Administration (FHWA). Although the FLHP has been in existence only since 1983, the NPS and the FHWA (and it's predecessor, the Bureau of Public Roads), have cooperated since the inception of the NPS in 1916. The NPS and FHWA have had a formal relationship since 1926 to develop and maintain the current system of National Park Roads and Parkways. The FLHP provides funding and the FHWA's engineering expertise to the NPS to support the construction, reconstruction, and rehabilitation of the PRP system. Funds are allocated on an annual basis from the Highway Trust Fund which is funded by the Federal motor vehicle fuel tax. The funds may be used only on roads and transportation facilities open to the public and may not be used for routine maintenance activities. Such routine maintenance operational costs remain the responsibility of the NPS.

When the FLHP was enacted in 1983, annual funding for the NPS was $75 million (M). Funding rose to 100M\year from 1984 - 1986, but fell to $60M from 1987 - 1991. Funding in 1997 was $84M. The previous FLHP funding legislation, the Intermodal Surface Transportation and Efficiency Act (ISTEA - pronounced "ice tea") expired at the end of fiscal year (FY) 1997. The Administration's proposed transportation reauthorization bill (FY 1998 - 2003) is currently pending in the Congress and would increase funding for the NPS from the present $84M per year to $161M per year.

Due to increasingly heavy use of the NPS road system and diminished funding, a significant portion of the NPS road, bridge and tunnel infrastructure has deteriorated to only fair or poor condition, and is deteriorating at an increasing rate. Particularly because of this deterioration, the NPS and FHWA concur that the PRP program must become more responsive in directing funds to where they are most needed and will be the most effective. This document incorporates the revisions and new procedures which have been developed to intensify efforts to reduce and correct this deterioration. The revisions were developed over a three year period by two groups of employees representing a cross section of persons involved with the PRP program from both the NPS and the FHWA (see Appendix C).

The new process and procedures represent a formal recognition that the first priority of the NPS must be to maintain the existing roadway system, before taking on high cost work such as widening or realigning roads, building new roads or addressing other transportation needs. This priority is carried out by dedicating the majority of the FLHP funds towards lower cost rehabilitation projects on existing roads in order to reverse the rate of deterioration of the overall NPS road system.

The new procedures also seek to gradually change the role of the NPS Washington Headquarters Park Facility Management (WASO) office, and to move much of the project level decision making to the Regional level. The WASO office will retain its policy and program direction setting role, while Parks and Regional Offices with assistance from the Denver Service Center (DSC) and the three Federal

Lands Highway (FLH) Divisions, will have greater responsibility for the day to day implementation of the PRP program.

The revised procedures are compatible and consistent with the Government Performance and Results Act (GPRA) goals of both the NPS and FHWA. The major Components of the new process and procedures are:

1. Necessary policy and technical expertise which serves the PRP program servicewide will be funded at the WASO and Federal Lands Highway Headquarters Office (FLHO) levels prior to allocating funds to project categories. This expertise provides the means to collect and maintain data which measures road and bridge conditions, traffic accidents, and PRP accomplishments (GPRA reporting requirements); to readjust funding allocations between Regions as road and bridge conditions, traffic volumes, and traffic accident rates change; and to provide expert advice on traffic safety problems and solutions.

. 2. The majority of the PRP project funding (60%) will be dedicated to 3-R work for rehabilitation and traffic safety improvement projects to reverse the deterioration in condition of roads and bridges, and to reduce accidents servicewide. A formula based upon amount and relative condition of infrastructure in each Region, volume of traffic, and traffic accident rates will be used to distribute these dedicated funds among the seven NPS Regions. Special consideration will be made for the Alaska Region which has a very small percentage of the servicewide PRP infrastructure, but uniquely high costs for project contracts and mobilization.

3. The remaining PRP project funding (40%) will be dedicated to 4-R work for reconstruction, realignment and new road and parking area projects. Funding for these projects will be distributed based upon each project's ranking on a servicewide priority (SWP) list. The FLHP SWP list will be ranked under new procedures using the Choosing by Advantages (CBA) method, similar to what has already been adopted for the NPS line-item construction program.

4. If appropriated annual funding exceeds the minimum $120M required to reverse the deterioration of the NPS road system, separate SWP lists will be established for the completion of Congressionally mandated new roads and parkways, and the construction of alternative transportation mode (transit) systems. If the $120M annual funding level is not reached, these projects will be ranked together with the reconstruction (4-R) category on one SWP list.

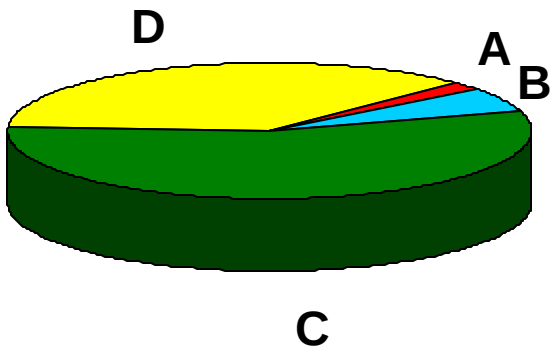
5. Funds will be set aside each fiscal year for contingencies to cover construction contract modifications and overruns. Set-asides for rehabilitation (3-R) category projects will be at the Regional level. Set-asides for the reconstruction (4-R) projects will be at the WASO or FLHO level.

6. In order to extend the life of new and rehabilitated pavements, funding for the application of a pavement seal coat will be recommended within one to three years after completion of the FLHP project. The one time application will be funded with FLHP funds.

7. Concise written guidance will be further developed and maintained for all aspects of the PRP.

These revised procedures were reviewed by FHWA and the NPS servicewide. Implementation will begin with a servicewide budget call for FY 2000 projects. The program of funding the one-time seal coating of recently resurfaced FLHP roads will start in FY 1999. The Regional distributions for 3-R work will begin in FY 2000. The first year any of the newly prioritized 4-R projects could be funded is in FY 2000.

PRP Program Funding Categories



A. Pavement Seal Coats

B. NPS and FHWA Servicewide Coordination, Inventory Management and Safety Programs

C. Rehabilitation (3-R) Category Distribution by Formula to Regions

D. Reconstruction (4-R) Category Distribution by SWP

II. Context

A. The Federal Lands Highway Program (FLHP) and Park Roads and Parkway Program (PRP)

The Park Roads & Parkway (PRP) program, as a component of the Federal Lands Highway Program (FLHP), is jointly administered by the Federal Highway Administration's (FHWA) Federal Lands Highway Office (FLH) and the National Park Service (NPS). FLHP was established by the Surface Transportation Assistance Act of 1982 and includes similar component programs with the Forest Service and the Bureau of Indian Affairs. Funding for the FLHP began in Fiscal Year (FY) 1983.

The FLHP provides funding and the FHWA's engineering expertise to federal land management agencies to support the construction, reconstruction, and rehabilitation of each agency's public road system. Funds are allocated on an annual basis from the Highway Trust Fund which is funded by the Federal motor vehicle gas tax. The funds may only be used on roads and transportation facilities open to the public (as opposed to administrative and residential roads), and may not be used for routine maintenance activities (e.g. snow plowing, patching, restriping etc.). Such operational and routine maintenance costs remain the responsibility of each land management agency (see Appendix E for list of FLHP PRP eligible items).

The explicit statutory purpose program is to maintain and improve the quality, and condition of the approximately 8,000 miles of roads (paved and unpaved) and 1,460 bridges and tunnels which comprise the NPS's public road system servicewide.

Under the 1983 Interagency Agreement with the FHWA (see Appendix G), NPS responsibilities include identifying and prioritizing projects to be undertaken. From the priority list, a multi-year project schedule is formulated by the Washington DC Headquarters (WASO) of the NPS. From the multi-year schedule, an annual program is developed each year in consultation with the FLHO. Funds are distributed annually to the three Federal Lands Highway (FLH) Division offices (see Appendix A), NPS Regions, Denver Service Center (DSC) and Parks to implement project related planning, design, compliance, and construction work. The fund allocations are revised periodically throughout the year as projects develop and costs are refined.

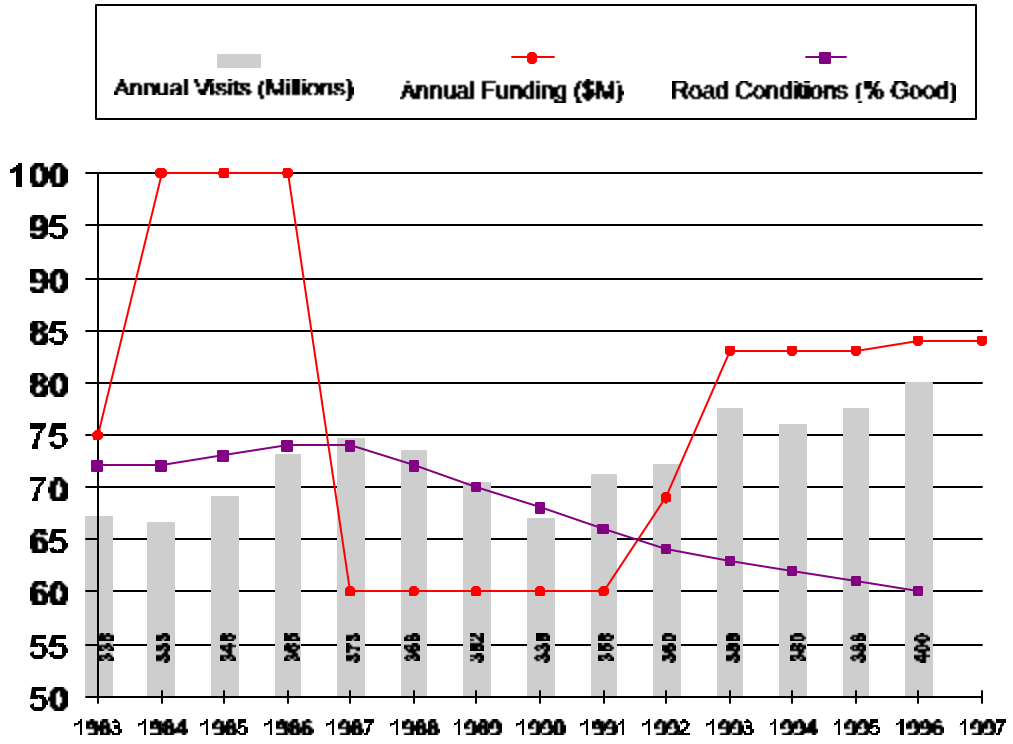
B. Funding Levels

Funding for the PRP program in recent years has been substantially less than during the first four years (even without considering inflationary devaluation). However, visitation and traffic levels on the Service's roads and bridges have greatly

increased. The increasing park visitation and traffic volumes cause greatly increased rates of pavement and bridge wear and deterioration. The result has been a significant and steady decline in the overall condition of the NPS road system.

The previous PRP Program funding legislation, ISTEA, expired at the end of FY 1997. The Administration's proposed transportation reauthorization bill (FY 1998 - 2003) would increase funding for the PRP program from the former $84M per year to $161M per year.

Figure 1 - Park Road and Parkway Program 15 year history



FHWA engineering analysis has determined that in order to reverse the decline in roadway and bridge conditions, a minimum of $120M will be required for rehabilitation and reconstruction type projects. The $120M figure was derived by modeling various levels of investment and the changes in condition of the servicewide road infrastructure which would result from those levels of investment (see Section III. C). Annual funding of less than $120M will result in the continued deterioration of the NPS road system.

If appropriated funding exceeds the minimum $120M required to reverse condition deterioration, the additional funding will be directed towards the completion of Congressionally mandated new roads and parkways (e.g. Natchez Trace, Foothills Parkway etc.), and to the construction or purchase of the infrastructure to establish "alternative mode" transit systems in Parks. "Alternative modes" refers to alternative modes of transportation other than private automobiles (e.g. buses, light rail etc.)

C. PRP Problem Identification and Improvement Efforts

Because the PRP program funding has not increased in relation to traffic volumes, and the condition of the Service's road and bridge infrastructure is deteriorating, both the NPS and FHWA have determined that the PRP program needs more efficient project management.

In early 1995, a joint effort to enhance the PRP program was initiated by the FHWA and the NPS. A group of 10 FHWA and 16 NPS personnel known as a "Process Action Team" (PAT), met in a series of sessions to examine the existing PRP program, identify problems, and develop solutions. (For a list of those who served as PAT members see Appendix C.)

Using a professional facilitator, the PAT group first documented the existing PRP program. In the process, the group determined there were inconsistencies in how projects were prioritized, funds were allocated, and projects were scoped and defined. The PAT developed a series of flow charts documenting the current prioritization of projects, the formulation of the multi-year project schedule, the life of any one project, and the process of allocating and obligating funds in any one fiscal year. From this process the PAT identified three primary problems, which are summarized below:

1. The PRP program has been hindered by the lack of consistent project scoping documents and accurate cost estimates.

2. The process for prioritizing and programming projects and allocating funds has not been clearly documented.

3. There has been some general lack of understanding of the PRP program in the field and it has lacked consolidated written policies for its implementation.

In response to these problem statements, a series of strategies for improvement was developed. The responses, paraphrased below, relate numerically to each of the problem statements:

1a. Use a realistic 10-year PRP program of projects to prioritize updating of project proposals (10-238's & 802's).

1b. Commit more resources earlier for advance planning.

1c. Develop an integrated project scoping document.

2a. Develop a Regional fund allocation process.

2b. More clearly define and document a national prioritization process.

3a. Provide continuing training to NPS and FLH employees on the PRP program and processes.

3b. Require annual program meetings between NPS regions and FLH for the purpose of developing annual and multi-year schedule of projects.

For each of these strategies, specific steps to implement the actions were developed. The PAT findings, strategy statements and implementation steps were presented in August of 1995 to key management from both NPS and FHWA (listed in Appendix C). The stakeholders concurred with the PAT findings and recommendations and authorized the PAT to proceed with greater detail required to implement the proposals. In the spring of 1996, the newly formed NPS Servicewide Maintenance Advisory Committee (SMAC) continued work on implementing the PAT recommendations. A task group with a cross-section of persons involved in the PRP program from the NPS, FLHO and the three FLH Divisions was formed to reflect the interagency partnership of the PRP program (Appendix C).

The task group looked at a variety of aspects of the PRP program, but eventually determined that the process of prioritizing projects and allocating funds (PAT problem statement #2), had to be addressed prior to addressing any of the other recommendations. A written proposal for the implementation of the recommendations as requested by the NPS and FHWA stakeholders, was developed, and reviewed in 1997, and adopted in early 1998. This document describes the newly adopted procedures to allocate funds and prioritize projects.

III. The New PRP Procedures

A. Purpose of Revisions

The new process and procedures represent a formal recognition that the first priority of the NPS must be to maintain the existing roadway system, before taking on work such as widening or realigning roads, building new roads or addressing other transportation needs. This priority is carried out by dedicating the majority of the FLHP PRP funds towards lower cost rehabilitation projects on the existing roads in order to reverse the rate of deterioration of the NPS road system, as opposed to high cost major reconstruction and development projects. The revisions to the PRP Program also seek to increase the efficiency of the program and maximize the amount of funds actually reaching the roads, bridges and transportation needs in Parks. The revisions also initiate a fund distribution system which uses factual data to determine where the systems needs are the greatest and directs the funds accordingly. The fund distribution will be periodically updated to redirect funds as road conditions, traffic volumes and accident rates change as well as the funding levels authorized by congress and the President.

The revised process and procedures are compatible and consistent with the Government Performance and Results Act (GPRA) goals of both the NPS and FHWA.

B. Major Components of the Revised Procedures

- The revisions will gradually change the role of the NPS Washington Headquarters Park Facility Management (WASO) office, and move much of the project level decision making to the Regions. The WASO office will retain its policy and program direction setting role.

- Policy and technical expertise which serves the PRP program servicewide will be funded at the WASO and FLHO levels prior to allocating funds to project categories.

- The majority of the PRP project funding (60%)will be dedicated to road and bridge rehabilitation and traffic safety improvement projects to reverse the deterioration in condition of roads and bridges, and to reduce accidents Servicewide.

- A lessor portion of the PRP project funding (40%) will be dedicated to new construction, reconstruction and realignment projects.

- If appropriated annual funding exceeds the minimum $120M required to reverse the deterioration of the NPS road system, separate SWP lists will be established for the completion of Congressionally

mandated new roads and parkways, and the construction of alternative transportation mode (transit) systems.

- Funds will be set aside each fiscal year to cover construction contract modifications and overruns.

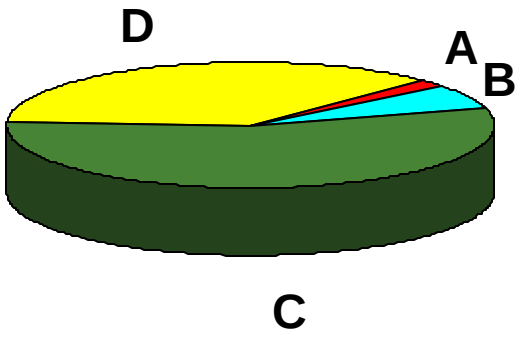
- Project agreements will be required for all projects prior to funds being distributed.

- Planning, design and engineering for a project (project types 05, 15, 42, 43, 06, 07, & 26) will be limited to a maximun of 18% of net construction for 4-R and new construction projects, and limited to a maximum or 10% for 3-R projects.

- In order to extend the life of new and rehabilitated pavements roads, the application of a one time pavement seal coat will be required within one to three years after the completion of PRP projects, which will be funded under FLHP.

- Concise written guidance will be further developed and maintained for all aspects of the PRP.

Figure 2 - PRP Program Funding Categories



A. Pavement Seal Coats	**B.** NPS and FHWA Servicewide Coordination, Inventory Management and Safety Programs
C. Rehabilitation (3-R) Category Distribution by Formula to Regions	**D.** Reconstruction (4-R) Category Distribution by SWP

C. Investment Strategy

The decision to devote 60% of project funding towards Rehabilitation (3-R) work, and 40% towards Reconstruction (4-R) work resulted from modeling plots of the NPS roadway network condition over time. Each separate performance curve shown in Figures 3 and 4 illustrates how the conditions of the road system will improve or deteriorate with varying allocations given to lower cost per mile rehabilitation (3-R) and higher cost per mile reconstruction (4-R) projects. (For a detailed description of what constitutes rehabilitation and reconstruction work, see Sections III. D and III. E).

A condition of less than 60 indicates the average condition of the road system is poor, and a condition of 100 indicates the average condition of the road system is excellent. The assessment of current condition (the common point of all curves in 1997) is based on road condition data collected in 1994-5 on approximately 60% of the total paved miles in the NPS system. The distinction between the 3-R and 4-R categories shown in these curves is the cost per mile for work. In these models, rehabilitation (3-R) work moves a road from its current condition to an excellent condition (which is a value of 100), for a cost of approximately $250,000 per mile. Reconstruction (4-R) work moves a road from its current condition to excellent condition for a cost of $800,000 per mile. The primary difference between the two work categories is cost of raising the road value to 100. In rehabilitation, funds are expended primarily on the existing roadway bench while raising a road condition to 100 (see Figure 5 for an illustration of the road bench). In reconstruction, additional funds are expended on work items such as widening or realigning outside the road bench, which significantly increase the cost of a project, while still only raising the road condition to a value of 100.

With the current average condition of the network being so low (approximately 58), and given the size of the network, there is little hope for improving the condition at the current funding level of $84M/year regardless of how the money is split between 3-R and 4-R. The best case scenario is to maintain near current conditions. For any annual funding level, a significant increase to the overall network condition can be realized only if a substantial proportion of money is spent on 3-R work. Also, the less money available, the more important how the money is divided becomes. The importance of the division is illustrated by the larger "spread" between the upper condition curves for the lower funding level. These figures should be used only for general comparisons. The assumptions and condition data used in performing pavement deterioration modeling is not 100% accurate or complete. Thus, the conclusions drawn from the data should only be used for predicting general trends in the condition of the NPS road system

The modeling described above measures only the pavement condition within the road bench. It does not measure or value the multitude of other factors which may cause the NPS to choose to expend funds to widen, realign or do other work on a road. Therefore the proposed 3-R/4-R division of 60%/40% was selected as a reasonable, though not necessarily optimal, starting point for allocation of funds given the current condition of the roads and infrastructure within the Park system. The percentages were chosen to give Park Managers flexibility in choosing how to maintain their Park roads, yet to encourage the most cost effective approaches in maintaining the PRP system.

Figure 3 - NPS road condition performance at $84M/year

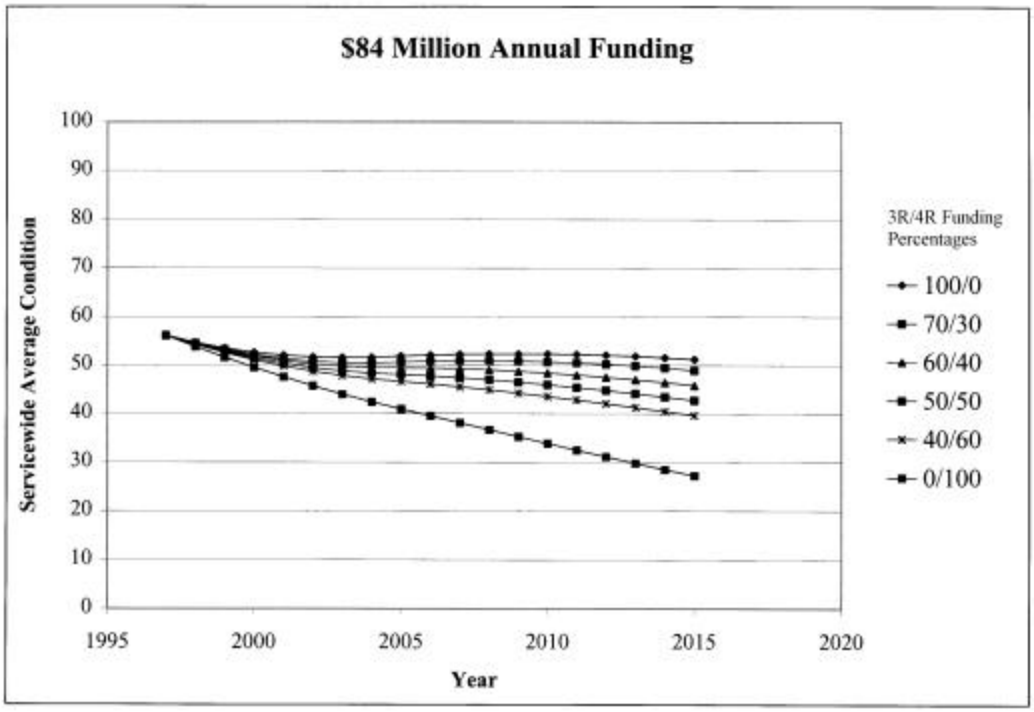
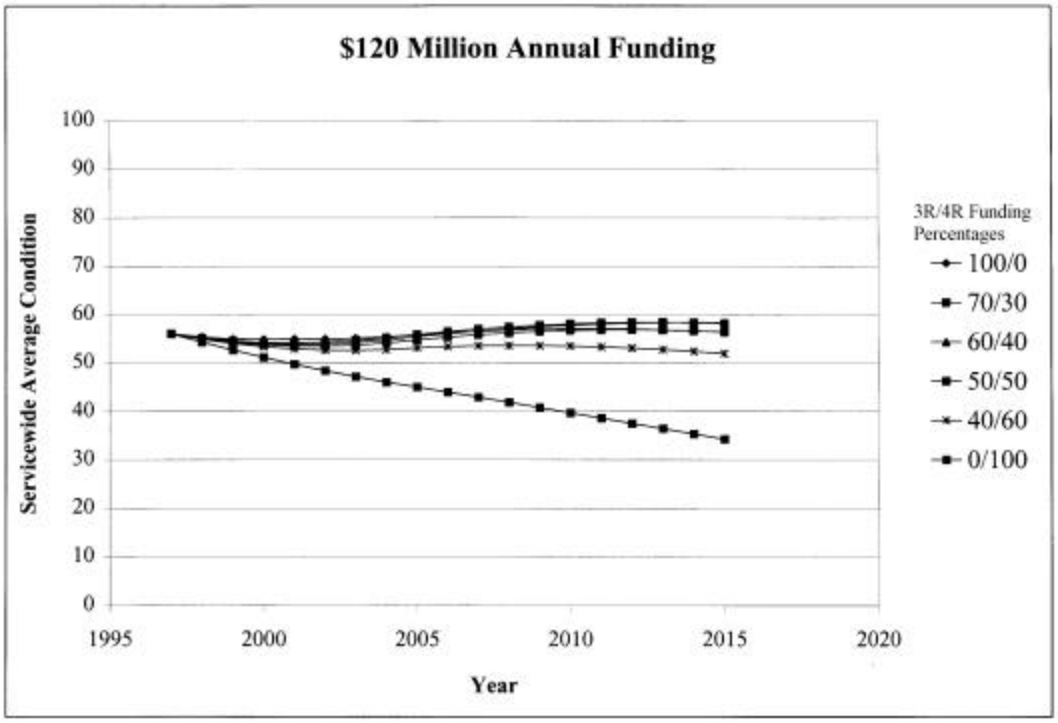


Figure 4 - NPS road condition performance at $120M/year



D. The Rehabilitation Category

The largest portion of the PRP (60%) project funding will be allocated among each of the seven NPS Regions based upon the mileage of paved roads, surface area of bridges, the condition of the paved roadways, volume of traffic, and number of traffic accidents within each Region. Adopting such a fund distribution method is intended to provide a logical and defensible, criteria based method for the distribution of funds to address the backlog of needs.

1. Rehabilitation (3-R) Category Parameters

Under the new procedures the rehabilitation (3-R) funds may only be used for work undertaken to extend the service life of an existing road and enhance safety. Such work is also known as Resurfacing, Restoration, and Rehabilitation, (3-R). 3-R work includes the placement of additional surfacing materials and/or other work necessary to return an existing roadway including shoulders, the roadside, and appurtenances, to a condition of structural adequacy.

Most 3-R work occurs on the existing road bench (see Figure 5). 3-R work generally can not involve widening beyond the existing road bench or require the construction of new retaining walls, or cuts and fills. Such work raises the cost per mile significantly, and thus will not be permitted within the 3-R category. Exceptions where 3-R work could occur off of the road bench include work on drainage structures, existing retaining walls, slope failures, bridges, and spot traffic safety improvement work. Two-lane 3-R type work generally ranges from $100,000 per mile to $500,000 per mile (1998 construction contract costs). Work which may be undertaken with the 3-R project category funds includes the following:

- Resurfacing (milling, recycling and overlaying) existing pavements.
- Excavating and replacing failed base courses and poor subgrade materials.
- Replacing, upgrading or relocating deteriorated, undersized or poorly located drainage structures (aprons, inlets, culverts and headwalls etc.).
- Repair or upgrading existing guardrails or guardwalls.
- Minor widening of the roadway, realigning of intersections, adding of turn lanes, intersection islands, or pullouts, flattening of curves, or adjusting curve superelevation if the work can be accomplished on the existing road bench.

- Repairing, rehabilitating or replacing existing retaining walls if the estimated cost of a single wall or site is $1.0M or less (1998 estimated construction costs).

- Repairing and or stabilizing landslides, severely eroding or failing slopes if the estimated cost of a single site is $1.0M or less (1998 estimated construction costs).

- No more than 5% of the a project's estimated construction costs should be expended off of the roadway bench to widen or realign the road, construct new paved pullouts or add other features that normally would be considered to be 4-R (widening or new paving) project work.

- Removing or grinding existing pavement to convert a road to an aggregate surface.

- Replacing, upgrading or adding new pavement markings and signage to address changing traffic patterns, new uses or safety problems as well as to meet current standards if occurring in conjunction with a 3-R roadway project. Sign or marking replacement due to age, damage or deterioration is not eligible for PRP funding, unless undertaken as part of an road rehabilitation project.

- All the aforementioned work can be performed on existing parking areas, pullouts, sidewalks or bicycle paths if the work is incidental to a 3-R roadway project.

3-R qualifying bridge work includes approach fill rehabilitation, superstructure (deck, rails & girders) replacements, abutment and foundation repairs, abutment slope protection, foundation scour repair and protection work, and piling replacements. Small bridges or large box culverts may be replaced if the estimated cost for a replacement structure is $1.0M (1998 construction costs) or less.

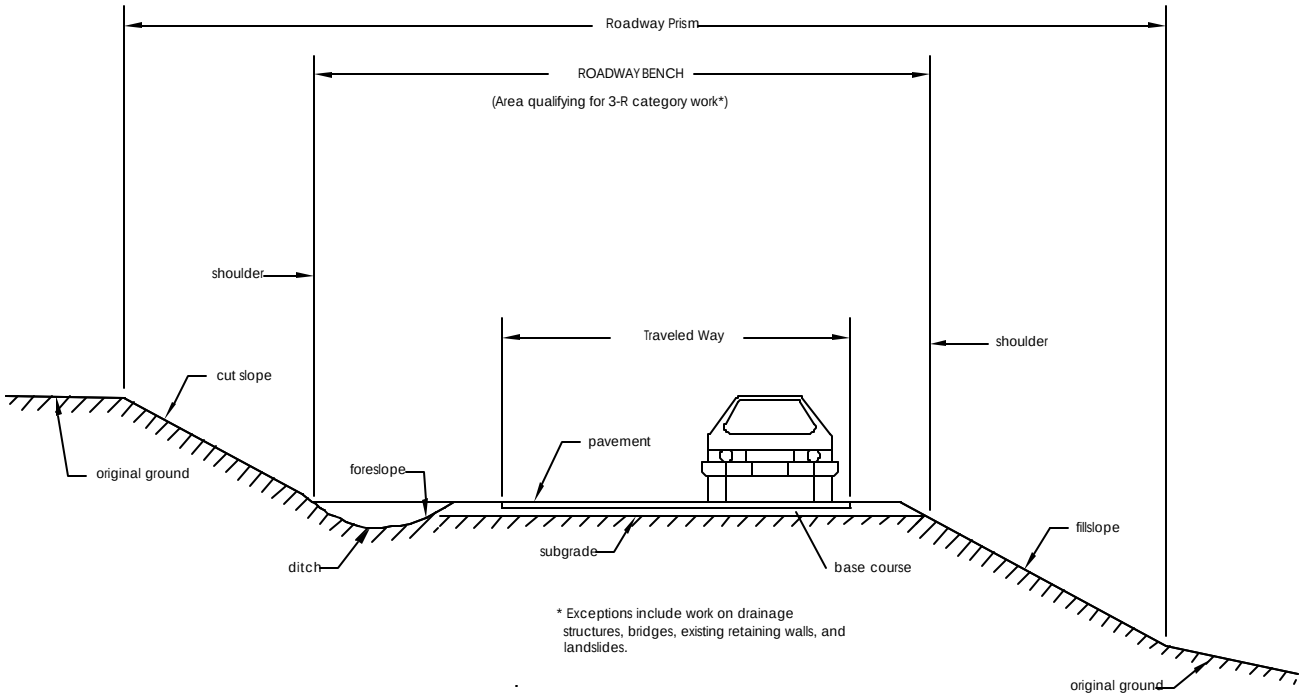
Work that will not qualify as 3-R work (in addition to the exceptions previously listed) includes paving previously unpaved roads or parking areas, constructing new parking areas or pullouts, widening off of the present road bench, realigning and relocating roads (vertical or horizontal realignments), replacing larger bridges (exceeding $1.0M), and constructing new bicycle paths.

Three alternatives exist when the scope of a proposed project increases beyond the 3-R parameters: 1) reduce project to fit within the 3-R limits; 2) defer and resubmit as a reconstruction (4-R) project; or 3) procure funding for non 3-R work through other funds (e.g. line-item, grants or fee revenues).

The degree of improvement shown for NPS Regions in the periodic Road Inventory Program (RIP) condition surveys, the ratio of administrative costs to construction costs, and the average cost per mile

for projects in each Region will be used by NPS and FHWA to measure how efficiently and effectively each Region operates its 3-R program.

Figure 5 - Typical 3-R Category Road Prism



2. 3-R Traffic Safety Improvement Work

In addition to the 3-R qualifying rehabilitation work outlined above, spot traffic safety improvement project work to correct identified safety problems at high accident locations may be undertaken with 3-R funds. Such work is limited to specific sites (e.g. a curve or intersection), where a history of accidents has been documented in a safety study, and where the study developed prescriptions to reduce accidents at the site. Such studies may also be funded out of a Region's 3-R program. None of the 3-R limitations listed above apply to safety improvement work, except that the cost for any single site can not exceed $1.0M in estimated 1998 construction costs. Work could include roadway widening, realignments, new paving, new guardrails or walls, new sidewalks or bicycle paths for separation of traffic, street lighting, traffic signals or other improvements which can be shown to reduce the rate or severity of accidents at that location.

3. Rehabilitation (3-R) Category Allocation Formula Development

A simple formula for distributing the 3-R funding between the Regions has been adopted. The formula is based on four attributes of a Regional road network: inventory, roadway condition, traffic volumes,

and traffic accident rates. The greater number of lane miles and surface area of bridge decks, the worse the condition of the roads, the greater volume of traffic and the more accidents that occurred in a Region, the more funding that Region will receive to address those problems. The road conditions are derived from the Road Inventory Program (RIP), which measures road conditions servicewide on a periodic basis. The RIP data is collected by the FHWA in cooperation with the NPS. Traffic volume is measured by the NPS traffic monitoring program. Accident rates are derived from the Servicewide Traffic Accident Reporting System (STARS). Each of the attributes will be measured on a three year cycle and the Regional funding distribution recalculated following receipt of the new data.

Table 1 depicts the lane miles of paved road, surface area of bridge decks located in each of the seven NPS Regions, and percentage of total Servicewide infrastructure represented by that Regions inventory. The last column of Table 1 (Combined Inventory) represents a cumulative total for infrastructure in each Region relative to the total backlog of work required to bring the NPS road system up to a good condition rating. The total roadway pavement backlog is estimated by FHWA to be approximately $2 Billion dollars, and the bridge backlog is approximately $100M. Therefore the combined inventory was developed by making the road backlog proportional to the bridge backlog. In this case the $100M bridge backlog represents 5% of the $2 Billion road backlog. Thus the combined inventory column was developed by weighting the road and bridge data with the following formula:

0.95 x % of road inventory + 0.05 x % of bridge inventory = Combined Inventory

For example the combined inventory for Southeast Region would be calculated:

(0.95 x 26.68%) + (0.05 x 46.81%) = 27.70%

Table 1 - NPS Paved Road and Bridge Infrastructure Inventory

REGION	ROAD INVENTORY (lane mi.*)	BRIDGE INVENTORY (sq. ft.)	ROAD INVENTORY (%)	BRIDGE INVENTORY (%)	COMBINED INVENTORY (%)
AKR	60.4	89,022	00.56	01.36	0.6
IMR	3213.6	813,510	29.93	12.37	29.1
MWR	337.8	56,832	3.15	00.87	3.0
NCR	805.0	1,233,238	7.50	18.75	8.1
NER	898.8	899,890	8.37	13.68	8.6
PWR	2577.1	405,217	24.00	06.16	23.1
SER	2843.4	3,078,457	26.48	46.81	27.5
TOTAL	10,736.1	6,576,166	100.00	100.00	100.00

* One mile of two lane road equals two lane miles, and one mile of four lane road equals four lane miles

Table 2 depicts the average condition index for each Region, and the proportion of total servicewide deficient miles in each Region, as measured by the RIP. This RIP survey was conducted between 1994-95, over approximately 60% of the lane miles servicewide where 80% to 90% of the vehicle

traffic occurs. This cycle of the RIP measured the smoothness of the paved lanes, from which indications of paved road conditions can be inferred. Subsequent cycles of the RIP will measure additional roadway attributes over a majority of the NPS road system as well as inventorying and measuring the condition of large paved parking areas.

Deficient miles are those roadway segments in need of some type of rehabilitation based on the RIP condition rating. Both fair and poor roads meet this criteria. Poor roads typically require a greater degree of rehabilitation (and therefore greater costs). The rating is a 0 to 100 scale, where 0 to 59 represent poor condition, 60 to 84 represent fair condition, and 85 to 100 represent good condition. The total number of deficient miles in a region is defined as:

Miles with condition rating < 60 (poor) + 0.5 x miles with condition rating between 60 and 84 (fair) inclusive.

Table 2 - 1995 Road Conditions

REGION	AVERAGE RIP INDEX #	DEFICIENT ROAD MILES
ALASKA*	62.6	00.4%
INTERMOUNTAIN	58.8	32.4%
MIDWEST*	62.6	03.0%
NATIONAL CAPITOL	61.1	02.9%
NORTHEAST	64.2	07.6%
PACIFIC WEST	56.9	28.5%
SOUTHEAST	69.8	25.2%
NPS Average/cumulative	62.6	100.0%

* Road condition data is not available for Midwest and Alaska Regions at this time. National averages used in the interim in lieu of Region specific data. New data to be collected and fund distribution to be adjusted by year 2001.
# Values based upon data collected in 1994-95 by FHWA on approximately 60% of the NPS paved road network.

Table 3 depicts the average daily traffic (ADT) volume in each Region as measured in 1994, and the Servicewide percentage of ADT in each Region.

Table 3 - Average Daily Traffic (ADT) Volume by Region - 1994.

REGION	ADT	SERVICEWIDE (%)
AKR	1,718	0.4
IMR	30,827	6.9
MWR	6,530	1.5
NCR	273,115	61.5
NER	37,053	8.3
PWR	27,841	6.3
SER	67,243	15.1
TOTAL	429,346	100.00

Table 4 depicts the numbers of total recorded traffic accidents over the most recent three year period tabulates and the servicewide percentage of accidents in each Region.

Table 4 - Traffic Accidents by Region, 1993-95

REGION	TOTAL ACCIDENTS	SERVICEWIDE (%)
AKR	47	00.2
IMR	3,881	16.9
MWR	207	00.9
NCR	9,464	41.2
NER	2,641	11.5
PWR	4,307	18.7
SER	2,429	10.6
TOTAL	22,976	100.00

For use in the Regional 3-R fund distribution formula, Each of the four attributes (combined infrastructure inventory, road conditions, traffic volume, and accidents) have been weighted to reflect the relative size and importance of the attributes in the context of the 3-R project category. The greatest emphasis is placed upon the combined infrastructure inventory (55%), followed by roadway condition (30%), followed by traffic volume (10%), followed by traffic accidents (5%).

Roadway condition was given a lessor weighting due to the fact that the RIP average condition index variation among the Regions surveyed was not enormous (69.8 to 56.9). In addition, there was concern with creating a funding system which rewards more funding to Regions with poor condition roads. Such a system could be construed as creating a disincentive for a park or Region to operate an efficient and cost effective road maintenance program. However the poor condition roads servicewide must still be repaired and rehabilitated. Furthermore, in most cases deficient roads have deteriorated due to inadequate funding. Therefore the weighting was selected to allow for rehabilitation without creating disincentive.

Traffic volume was also given a lessor weight. Pavement condition, which is included in the formula, already reflects traffic volumes. This is based upon the fact that heavier traffic volumes will result in a more rapid decline of the pavement conditions, which in turn will be reflected in the periodic Road Inventory Program (RIP) surveys and recalculation of the 3-R fund distributions. The 1994-95 RIP also surveyed the Park units where between 80 and 90% of the total NPS traffic is located. Another reason is due to the heavy commuter traffic using the parkways of the NCR. The NCR traffic volume is over four times heavier than the next most heavily traveled Region.

Traffic accidents were given the smallest weighting in the formula, as most traffic accidents are due to driver error. Only a minor percentage can be attributed to road condition.
The formula adopted is a simple and logical fund distribution mechanism. It will likely be modified over time as the NPS, with FHWA assistance, develops additional data on NPS roadway conditions and deterioration modeling nationwide. The FHWA is working to develop pavement, bridge, safety and congestion management systems which will eventually aid in making more sophisticated fund distribution and infrastructure investment decisions. However such systems will rely upon very detailed servicewide RIP data which is currently unavailable, and thus the implementation of such systems is still years away.

Formula for distribution of 3-R category funding:

(0.55 x A) + (0.30 x B) + (0.10 x C) + (0.05 x D) = E

A = percent of combined inventory (lane miles and bridge area) in a Region.

B = percent of deficient lane miles in a Region.

C = percent of average daily traffic in a Region

D = percent of traffic accidents in a Region

E = percent of 3-R funding allocated to a Region.

Table 5 shows the newly adopted Regional 3-R funding distribution which will occur using the formula. As RIP condition, ADT, and traffic accident data is gathered for Park units on a three year cycle, the funding distribution formula will be recalculated and the 3-R fund distribution will be adjusted. Since inventory is the predominant factor in fund distribution, the general funding trends are expected to continue.

Table 5 - Proposed 3-R Category Fund Distribution

REGION	COMBINED INVENTORY (%)	DEFICIENT MILES (%)	ADT %	ACCIDENTS (%)	PROPOSED FUNDING (%)
AKR	0.6	0.4	0.4	0.2	0.5 *
IMR	29.1	32.4	6.9	16.9	27.2
MWR	3.0	3.0	1.5	0.9	2.8
NCR	8.1	2.9	61.5	41.2	13.5

NER	8.6	7.6	8.3	11.5	8.4
PWR	23.1	28.5	6.3	18.7	22.8
SER	27.5	25.2	15.1	10.6	24.7
TOTAL	100.00	100.00	100.00	100.00	100.00

* Alaska Region will receive guaranteed minimum funding each year . The exact percentage for Alaska cannot be determined until highway spending legislation for FY 1998 and beyond is appropriated.

4. Other Formula Attributes Considered

Other road system attributes were considered for inclusion in the formula. However, these attributes were ultimately eliminated from consideration in an effort to develop the simplest possible formula for fund allocation.

For example, varying types of terrain were considered since the cost of construction in mountainous terrain is much greater than in flat terrain. However, terrain primarily effects project costs for work occurring outside the existing road bench, where steeper ground would affect costs. Because the 3-R category work would occur primarily on the existing road bench, the differing terrain should not significantly affect costs. Thus, terrain was not included in the 3-R distribution formula.

The mileage of unpaved roads was also considered for use in the formula. It was rejected for two reasons. First, over 65% of the NPS unpaved road miles are located in only two Regions (Intermountain and Pacific West); second, because PRP funds are limited, the first priority is maintaining the integrity of the paved road infrastructure.

5. Regional Rehabilitation (3-R) Category Responsibilities

As part of the new program procedures, additional responsibilities for the coordination and implementation of the PRP are being shifted from WASO to each of the seven NPS Regions. The shift will bring decision making closer to the field, and require greater commitments of time and personnel by each Region. The successful implementation of the PRP program in any Region will depend upon the strong coordination of the program within that Region as well as coordination with WASO, other Regions, FLH Divisions, the DSC and the Parks. A successful program will be most effectively implemented with a single PRP coordinator for each Region.
Each NPS Region will be responsible for developing a priority list of 3-R projects and from that list, developing and maintaining a multi-year program of proposed projects. For servicewide consistency, Regions will be required to prioritize their prospective projects using the factors listed in Appendix D. The weighting or emphasis given to each of the factors, as well as the prioritization methods used will be the choice of each Region. Each Region will also be responsible for periodically updating and submitting their respective Regional 3-R priority list annually to WASO prior to the distribution of annual funding. Regions will develop their multi-year schedule in close consultation with their respective FLH Division and DSC project managers in order to deliver a viable schedule of projects.

Each Region also will be required annually to report its proposed program of 3-R projects for the following FY to WASO for inclusion in the NPS budget ("green book") which is submitted annually to the Congress. WASO will add the programmed 4-R projects to the annual NPS budget submission. Each Region will also be required to describe the past year's accomplishments in the report, including a brief summary of each project, miles rehabilitated, and planning, design and construction costs.

A well developed multi-year Regional 3-R program should have a range of project sizes, should maximize use of alternative bid schedules, bid additives or bid options, and should stagger dates for bid openings to allow for the highest annual obligation rate possible. No limits (minimum or maximum) will be imposed by WASO on the size of projects undertaken within the 3-R category as long as all projects meet the 3-R definition. Each Region will also be responsible for setting aside a portion of the funds to cover construction contingencies (modifications and quantity overruns), as well as planning, design, engineering and construction engineering (CE). At the end of a FY, any remaining funds can be used to award an additional small project, or award an alternative bid schedule or additive bid items.

A loan and borrow procedure will also be established between Regions for 3-R funds. Such a procedure has proven very successful between Forest Service Regions for portions of the FLHP program. The procedure should be initiated by Memorandum of Understanding (MOU) signed by each of the involved Regional Directors. This procedure will allow regions without sufficient funds for a large project in any one year to loan funds to other regions and in a subsequent year receive a larger sum. Likewise, in the event all funds distributed to a Region could not be obligated in a given FY, the funds could be loaned to another Region which was in need of, or had the ability to obligate additional funds. The funds would be repaid in the FY agreed upon in the MOU and before the end of the highway legislation which authorized the funds. Any funds that cannot be obligated, or loaned to another Region and obligated, must be returned to WASO, as FLHP allocations do not carry-over into the next fiscal year.

If an emergency or unforeseen need for a 3-R project suddenly arises, a Region can redirect funds from previously programmed projects within the region as required to address the need. If the Region does not have a large enough program of projects to fund the need, additional funds could be borrowed from other regions as described above. If the unforeseen need required a reconstruction (4-R) project, then the new project must be submitted to WASO for evaluation and potential inclusion in the Servicewide 4-R program.

For 3-R work, each Region will also be responsible for all activities required to complete a project. The Region will determine when to start design and compliance activities for any given project, within available funds distributed to the Region under the 3-R fund allocation formula.

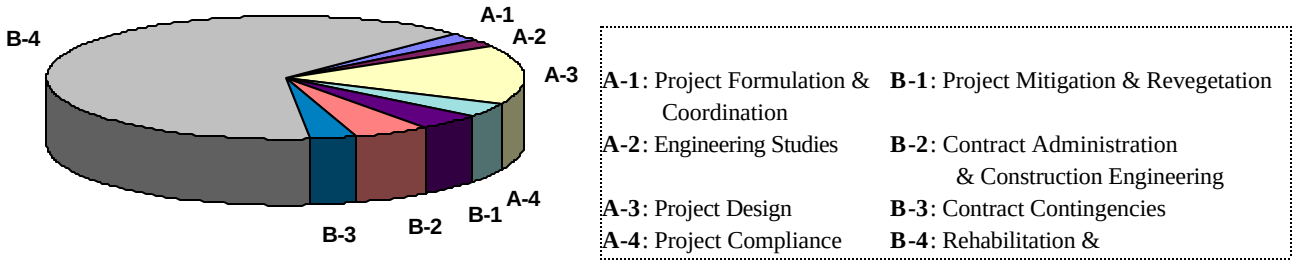
Because the work and resultant impacts for most 3-R projects will primarily occur on the existing disturbed road prism, compliance and planning activities should not be overly complex, costly, or time consuming. Most 3-R type projects will be able to satisfy National Environmental Policy Act (NEPA) compliance requirements using an Environmental Assessment (EA) and Finding of No Significant Impact

(FONSI), or even a Categorical Exclusion (CE). The extent of related activities such as extensive revegetation and archeological data recovery similarly will be less than that required in a widening (4-R) project. Likewise, the time and funds required for design on 3-R projects should be lower than those for a widening or realignment (4-R) project. The lower costs for these construction support activities will result in a greater proportion of dollars dedicated to a project actually reaching the ground in a Park.

Regions can obtain assistance for 3-R project planning, design, compliance and construction contracting services from the DSC, their respective FLH Divisions, other federal agencies (e.g. Corps of Engineers, Bureau of Reclamation etc.) or private consulting firms. Such activities, including program formulation and coordination and project tracking, must be paid for out of available annual Regional 3-R funds, and base salaries of permanent staff in NPS Regions and Parks can not be charged to FLHP project accounts.

WASO will continue to set aside and administer a small percentage of annual FLHP funds for minor spot traffic safety improvement studies and corrective project work at identified high accident rate locations. Staff at the Field Operations Technical Service Center (FOTSC) with traffic safety expertise will assist Regions and Parks in determining type and location of appropriate studies. The FOTSC staff is funded centrally and is available at no cost to Regions and Parks. If the result of these studies is a recommendation to implement improvements too expensive to be accomplished within available centralized funds, but which can be accomplished by the Region within the 3-R category parameters and safety project $1.0M limit, the Region will be responsible for prioritizing that in their 3-R projects program. If the studies recommend work exceeding the parameters of 3-R work or the $1.0M safety project limit, the proposed work must be submitted as a reconstruction (4-R) project in the next Servicewide FLHP budget call.

Figure 6 - Hypothetical Regional 3-R Program Expenditures



The costs for any planning studies such as Road System Evaluations (RSE's), or Parkwide Road Engineering Studies (PRES's), will be the responsibility of each Region using their 3-R funds.

Funding on a national basis for sign upgrades to meet the Manual of Uniform Traffic Control Devices (MUTCD) standards will also cease in FY 1999. Servicewide, the original goal of this funding has been achieved and thus requires no further dedicated, funded effort. Periodic sign replacement is more appropriately funded with ONPS Park base or cyclic maintenance funds. A Region will retain the option to dedicate part of their Regional 3-R funds for sign upgrades and revisions. However, routine replacement due to wear and age will remain ineligible for FLHP funding.

E. The Reconstruction (4-R) Category

The second largest portion of the PRP (40%) project funds will be allocated to major higher cost reconstruction projects. Reconstruction (or Realignment) constitutes the fourth "R", hence the acronym "4-R". Road reconstruction work (4-R) consists of altering the geometry of the roadway either through widening or modifying the current horizontal and/or vertical alignment. These types of projects are typically much more complex and costly than 3-R projects and result in more impacts to resources along the road. 4-R projects generally exceed $500,000 per mile, and can reach $2M to $4M per mile.

The condition of the road surface (ruts, cracks, potholes, etc.) is not a reason for pursuing reconstruction. Most surface defects in an existing roadway can be addressed using 3-R techniques described in the previous section. There may also be alternatives to road reconstruction such as limiting the numbers and or the sizes of vehicles, or providing alternate modes of transit which should also be considered to address the transportation problems such as those listed above. Because the PRP program has very limited funds, the numbers of roads selected for more costly 4-R types of work must be limited to only the most critical, high priority segments. Otherwise, the remaining majority of the NPS road system will receive less than adequate funding. See Section III.C for more information about investment strategies in 3-R and 4-R work.

1. Reconstruction (4-R) Category Prioritization

The 4-R roadway projects will be prioritized and funded on a national, servicewide basis similar to the NPS Line-item construction program. After an initial call for FY 2000, another call will be issued a year later for FY 2001-2003, and thereafter, WASO will issue a call for FLHP 4-R projects approximately every three years. The FLHP project calls will be similar in format to the calls for the line-item program. As in the line-item program, each Region will develop it's own list of 4-R projects which will be submitted to WASO for servicewide prioritization. Each Region's process for developing its 4-R submissions will also serve as an opportunity to sort project submissions into 3-R categories and 4-R categories.

The 4-R projects or packages will be limited to a minimum of $400,000 each, and will generally be within the range from $400,000 up to $5 million and a maximum limit of $10 million. Projects should be

formulated to address the smallest logical body of work that is functionally complete, reasonable to execute, and limited to the smallest geographic appropriate area. For bridges this would be a complete structure with required approaches, for roadways this would be logical segments of a road between intersections or use areas. Larger road segments requiring work exceeding this limit must be broken into multiple packages, and WASO may determine based on the availability of funds, that projects in the $5 million to $10 million range must be phased, if feasible. Each project proposal must describe a specific scope of road work with distinct start and stopping points. "Super" packages generally describing work such as "Reconstruct
Roads – Parkwide," or "Reconstruct Generals Highway" will no longer be accepted. A correct title would read: "Reconstruct and Realign South Entrance Road, South Boundary to Mariposa Grove Intersection (2.1 miles)," or "Reconstruct Generals Highway and guardwalls (4.2 miles), milepost 10.8 to 15."

Upon receipt of the project proposal forms in WASO, each package will be screened to insure a defined scope. The cost estimate will also be verified for accuracy. The servicewide priority (SWP) list will then be ranked using the "choosing by advantages" (CBA) method. The actual SWP list ranking will be developed by a panel composed of experienced individuals from within the NPS. The panel will be both geographically and organizationally balanced with multiple disciplines represented (as is the present line-item rating panel).

The CBA method was selected for the PRP 4-R category in order to maintain consistency with the line-item program, and take advantage of the training and familiarity developed in the NPS with the use of CBA over the past two years. The NPS National Leadership Council also has accepted and approved the CBA method, as have the Congressional Committees which deal with NPS appropriations.

The CBA objectives and factors used for prioritization of the FLHP 4-R projects are the same as those developed for the line-item program. However, within each of the factors, additional question prompts have been added to assist preparers in addressing project aspects unique to road and bridge projects. These questions will help applicants in providing pertinent, quantitative information to allow projects to be evaluated most effectively. The CBA objectives, factors and additional PRP prompts which will be used to rank proposed projects are listed in Appendix D.

After the rating panel has scored each package, and all projects submitted will be ranked in order of their respective scores, the cost value of the rated projects will be analyzed in relation to the available or programmed funding. From this analysis, a minimum threshold score will be established. Project proposals above the minimum threshold score level will then have their cumulative score divided by the estimated cost of the project. The use of the minimum threshold score and the cost ratio calculation will insure that the projects selected for funding will have high advantage scores and will be the most cost effective projects.

As done with the line-item program, the 4-R projects above the minimum score threshold, will then be grouped in cost bands. Banding further reduces the tendency of the CBA process to favor lower cost projects over higher cost projects. The numbers and sizes of the cost bands will be determined by the

ranking panel after the initial scoring of projects has been completed, and the distribution of project relative costs has been analyzed.

The highest scoring projects in each band will be selected for funding in any given fiscal year schedule of projects. The formulation of the annual program may be altered after the size and value of packages submitted for national prioritization are analyzed. Smaller packages might be funded at a lessor level in order to fund additional larger projects, or vice versa. A period of program fine tuning will be required for several years to reach an appropriate mix of project sizes.

2. Reconstruction (4-R) Category Project Scheduling

Once the proposed projects have been ranked, funds will first be allocated to the highest ranked project followed by the next highest ranked, and so on. Because the packages being submitted for prioritization must have a clearly defined project scope, the complication of several extremely high cost packages to be funded over many fiscal years will be reduced.

If low bids are received for a project, the excess funds will be returned to FLHO or WASO for use on other projects. A Region or Park will not be permitted to move the 4-R funds from a delayed project to another project of their choosing; rather the funds will go back into the PRP program for reallocation to the next highest ranked 4-R project in the NPS.

3. Reconstruction (4-R) Project Support Costs

At the WASO and FLHO level, five percent of the net construction project costs will be held back to fund construction modifications and quantity overruns within the original project scope.

Funds for 4-R project design, compliance activities (archeology, endangered species, wetlands, national register evaluations, NEPA document preparation etc.), revegetation seed and plant production, and other project related activities will be allocated up to a cumulative maximum of 18% by WASO. These support activities should start a maximum of two to three years prior to the scheduled construction obligation year.

In August of each FY, Regions with programmed 4-R projects will assemble and submit to WASO anticipated costs for the support activities from DSC, Parks, and other supporting offices. All requests will be required to first go through the peer review process. WASO will review the fund requests and, if appropriate, fund the requests at the start of the FY. Support costs for FLHP will be held to the same limits and conditions that the Service has adopted for Line Item Construction projects, with full consideration being given to all means of reducing costs:

- Planning, design, engineering and other FHWA and NPS support costs for 4 –R and new construction projects will be provided at a maximum of 18% of net construction. This

includes Project Types 05, 15, 06, 07, 42, 43 and 26. (Support costs for 3-R work will be limited to 10% of net construction.)

- All projects should consider lower cost approaches to Construction Engineering (CE)/ Construction Supervision (Project Types 12 and 21) through the consideration of alternatives such as fewer on-site supervisors, circuit riders, etc.

- Reduce travel and per-diem costs wherever possible, e.g. by scheduling meetings with the minimal possible numbers of participants, and at a location where the fewest have to travel, if possible.

- Serious reviews should be made of any proposed archeological investigations and compliance in connection with projects with a view to avoiding the problem entirely by avoiding the area in question.

- Consideration should be given to whether A/E's could more cost effectively accomplish the project.

- All 4-R, construction and alternate transit projects will be required to have at least one alternate bid schedule which is 10% under the engineer's estimate for the net construction cost of the project (programmed funding amount). Regions should, where appropriate, do the same for their regionally administered 3-R projects.

- Optionally, regions can also require an alternate bid schedule 25% less than the engineer's estimate on both 3-R and 4-R category projects, as in now required for all NPS Line-Item Construction projects.

- Charging of base salaries of permanent park staff against FLHP funds or projects is NOT permitted.

Fund requests which substantially exceed the parameters without peer justification will be returned to the respective Region for revision or better documentation to justify the costs.

F. Pavement Seal Coating

Application of a seal coat (chip seal or slurry seal) within one to three years after the installation of new pavements has been recognized as greatly extending the life of new and rehabilitated asphalt pavements. FHWA and the NPS have determined that pavements which are sealed within the first few years of being laid last much longer before significant deterioration begins to take place. Therefore the application of a seal coat will be required and will not be an optional treatment. Exceptions to this

requirement will be granted by WASO or FLHO for sites with local conditions which make the application not feasible or unsafe. Application of a seal coat costs as little as $15,000 to $20,000 per mile for two lane road.

In the past the application of seal coats was considered to be a routine maintenance activity and therefore not eligible for FLHP funds. However, because of the effect seal coats have on delaying deterioration, FLHO has developed an approach to allow the one time use of PRP funds to apply an initial seal coat. The approach is to define the seal coat as the final layer in the completion of the pavement section of a roadway. Seal coating will also require reinstalling pavement markings and replacement of raised pavement markers (if used) as part of the pavement completion.

As part of the Regional reporting requirements described in Section III. D. 3, each Region will be required to annually submit a list and cost estimate of recently completed PRP projects to have sealed. The funds for the sealing projects will then be set aside in a subsequent FY prior to the calculation of funds to be distributed for the 3-R and 4-R category project work. The funds will then be transferred to the Region, Park, DSC or FLH Division depending upon which is to serve as the obligating authority.

G. Congressionally Mandated New Parkways and Alternate Transportation Modes

If the PRP appropriated annual funding exceeds the minimum $120M per year required to reverse the deterioration of the NPS road system, separate ranked project priority lists will be established for completion of Congressionally mandated new roads and parkways and another ranked project list will be established for alternative transportation mode transit system projects. If the annual appropriation does not meet the $120M level, such projects will be evaluated using the CBA method and ranked within the 4-R category list. The Administration's proposed FY 1998 legislation would appropriate approximately $45M annually for these two categories.

In the development of the Alternative modes transit systems, the PRP funds can only be used for the initial purchase of transit vehicles, and the construction of initial infrastructure (e.g. staging areas, parking areas, access drives, shelter and station buildings). The funds are not permitted to be used for vehicle or system operation or maintenance.

H. Standard Operating Procedures (SOP) & Stewardship Plan

A draft FLHP PRP "stewardship plan" has been developed by the FLHO and NPS to serve as an all encompassing document for the implementation, administration and oversight of the PRP program. The stewardship plan, combined with this document, will also serve as the framework for a Standard Operating Procedures for the PRP.

Additional detailed instructions will be developed and distributed when a call for new projects occurs. The detailed instructions will address how to write project proposals for effectively competing in the CBA process.

I. Project Scoping

Under the new procedures all projects will be required to utilize a form such as the DSC Project Agreement (PA) in which the scope of the project is set forth, who will be involved is established, and necessary steps for project completion are delineated. Such agreements will require the signatures of all the decision makers involved in a given project. The respective FLH Divisions also should be included in the PA as signatories. Signing parties must include the Park Superintendent, DSC Project Manager, Regional Director and FLH Division Engineer or Project Manager, as appropriate.

The project scoping and development of the PA must be one of the very first steps which occur when the design and planning begins for a project. For most projects these first steps begin two to three years prior to the project construction obligation year.

J. Servicewide PRP Information and Management Programs

There are presently four major Servicewide inventory informational systems maintained as part of the PRP. They are the Road Inventory Program (RIP), Bridge Inspection Program (BIP), Servicewide Traffic Accident Reporting System (STARS), and Traffic Monitoring Program. Each of these management systems is funded as part of the PRP program at the WASO and FLHO level prior to allocating funds to the 3-R and 4-R and pavement sealing project categories. Within the NPS, these systems are maintained by staff of the WASO Park Facility Management Division.

The RIP is intended to periodically inventory the condition of the road system Servicewide, assessing conditions and providing infrastructure data to each Park and Region. Approximately 60% of the NPS miles were recently inventoried. Because of the cost of conducting the RIP, only the NPS roads which have the highest traffic volumes will be surveyed in a three year cycle. Less heavily traveled roads will be surveyed less frequently. Future RIP cycles will also inventory and survey the condition of large paved parking areas. The results of the RIP are critical in determining the Regional 3-R fund distribution, assessing whether implementation of the PRP is efficient, and in justifying the funds required to maintain the PRP.

NPS bridges and tunnels are surveyed on a two year cycle as part of the BIP by staff from FLH Divisions. These biennial inspections are required by law, and are critical in maintaining the bridge and tunnel infrastructure in a safe condition.

The STARS system relies upon parks to input data on traffic accidents to monitor where and how many accidents occur. This information is critical to maintaining safe roads and responding when traffic safety problems arise. NPS staff is working to increase the consistency and accuracy of reporting into the STARS system, and to better disseminate the data back to the Parks and Regions for preventative action and use in project formulation and prioritization.

The Traffic Monitoring System consists of a series of traffic counters installed within 33 Park units where some 80 to 90% of the Servicewide traffic volume is located. These 33 Park units were selected from a much larger group of Parks in the 1980's after it was determined that the majority of the traffic is located in those Parks. The specific Parks where data is collected is periodically adjusted as visitation trends are analyzed.

IV. Implementation Timing

The program of funding the one-time seal coating of recently resurfaced FLHP roads will start in FY 1999. The Regional distributions for 3-R work will begin in FY 2000. The first year any of the newly prioritized 4-R projects will be funded is in FY 2000. Projects already programmed for FY 1998 and FY 1999 will be "grandfathered".

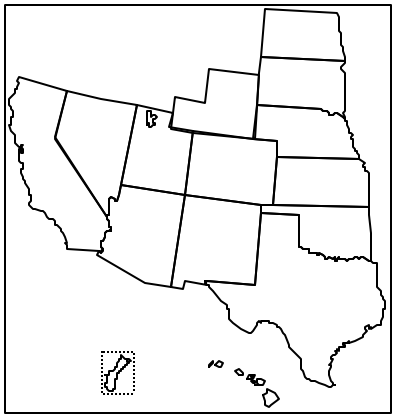
V. Appendices

Appendix A
FLH Divisions Map
(Figure A-1)

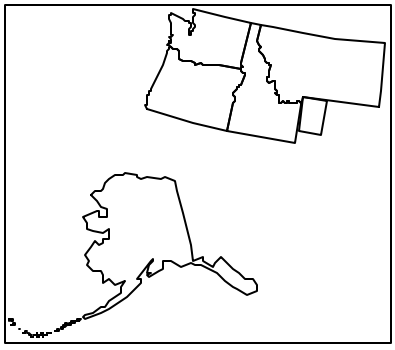
Headquarters
Federal Lands Highway Office (FLHO)
Washington, D.C.

Eastern
Federal Lands Highway Division (EFLHD)
Sterling, Virginia

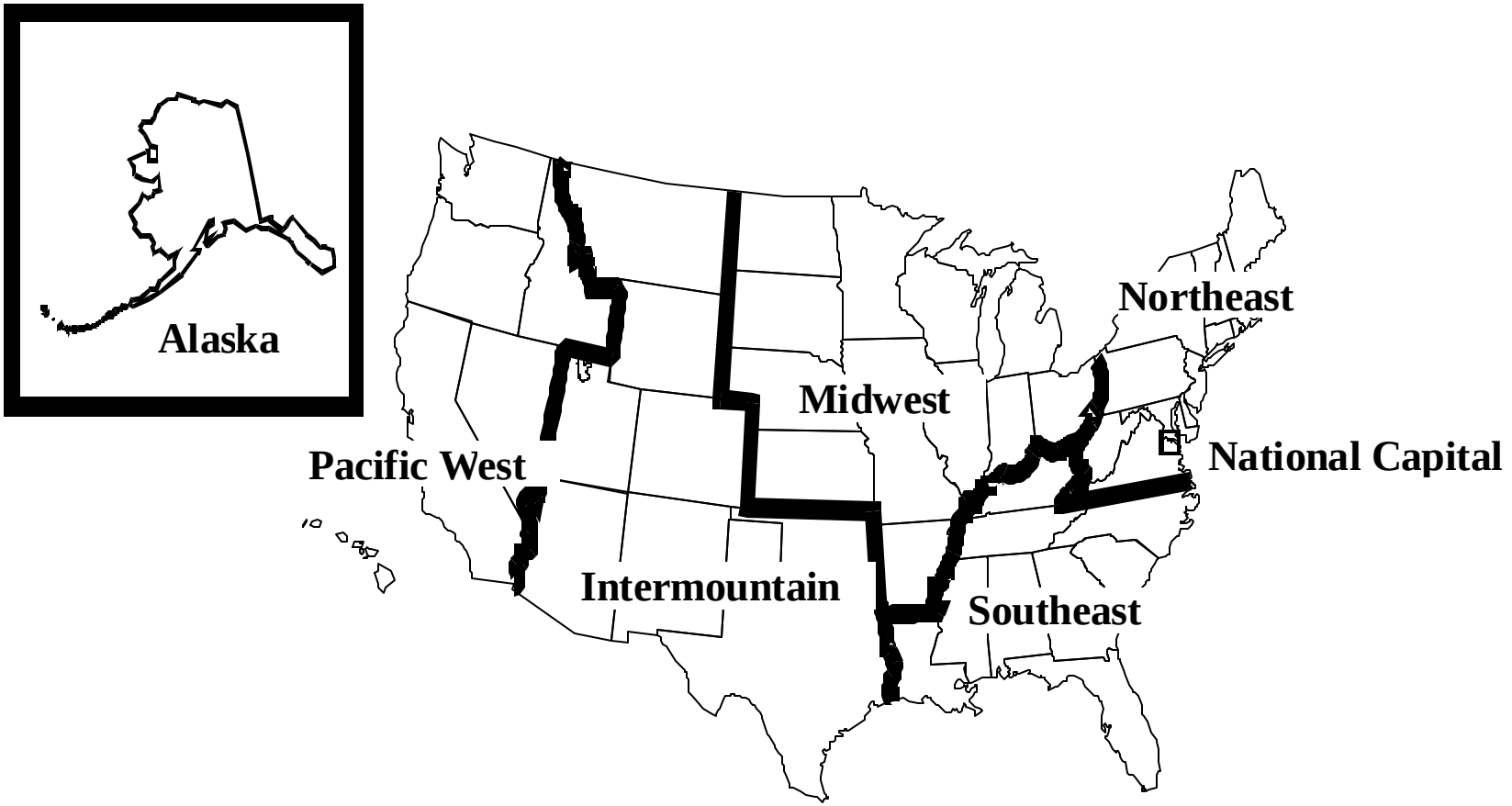
Central
Federal Lands Highway Division (CFLHD)
Lakewood, Colorado



Western
Federal Lands Highway Division (WFLHD)
Vancouver, Washington



NPS Regions Map
(Figure A-2)



Appendix B
Historic FLHP PRP Fund Distribution

The table below analyzes how funds have been invested in the NPS's road infrastructure since the inception of the FLHP in 1983. Table B-1 shows the division of FHWA expenditures by Region between 1983 and 1995 (Regions have been corrected for new NPS organization) in comparison with each Region's percentage of the combined road system infrastructure (paved lane miles + bridges), and the average condition index of that Region's paved roads. Total PRP expenditures are not shown since the NPS has obligated approximately 20% of the total PRP funds over the life of the FLHP. The Regional breakdown of PRP obligations was not available from the NPS.

Table B-1 - FHWA PRP FUND OBLIGATIONS 1983 - 1995

REGION	FHWA OBLIGATIONS FY 83-95*	% OF OBLIGATIONS	% NPS COMBINED INVENTORY	AVERAGE CONDITION INDEX
AKR	$ 17,620,986	2.2%	0.6%	#
IMR	$248,626,406	31.4%	29.1%	58.8
MWR	$ 30,632,351	3.9%	3.0%	#
NCR	$106,627,461	13.5%	8.1%	61.1
NER	$ 74,440,822	9.4%	8.6%	64.2
PWR	$105,576,768	13.3%	23.1%	56.9
SER	$207,644,000	26.3%	27.5%	69.8
TOTAL	$993,000,000	100%--	100%	

* The figures only include the funding allocated to FHWA. They include design (PE), contract supervision and administration (CE), and construction contract costs.

No condition data was collected for MWR and AKR in 1994-95 RIP survey.

Appendix C
Participants List Of The Interagency Effort to Improve The FLHP PRP

FHWA/NPS PROCESS ACTION TEAM

Stakeholders:

FHWA	NPS
Tom Edick, FLHO	Deny Galvin, WASO
Al Burden, FLHO	Charlie Clapper, DSC
Gary Klinedinst, EFLHD	Dale Wilking, WASO
Larry Smith, CFLHD	John Gingles, WASO
Jim Hall, WFLHD	Regional Directors

Team Members:

FHWA	NPS
Butch Wlaschin, FLHO	Mark Hartsoe, WASO
Don Patrick, FLHO	Mike Donnelly, DSC
Carol Jacoby, EFLHD	Nancy Bale, DSC
Gary Brown, EFLHD	Harold Gibbs, DSC
Larry Klockenteger, CFLHD	Howard Wagner, DSC
Seth Greenwell, CFLHD	Bob Schrefler, DSC
Mark Taylor, CFLHD	Lou DeLorme, DSC
Bridget Broomfield, CFLHD	Val Knight, SERO
Cindi Kinder, WFLHD	Simon Tran-M-Trung, SERO
	Dave Kruse, WRO
	Dick Engle, PNWRO
	Dave Hammers, NCR
	Craig Stubblefield, RMRO

SERVICE WIDE MAINTENANCE ADVISORY COMMITTEE
FLHP TASK GROUP

NPS:	FHWA:
Craig Stubblefield,* RMSO (now NATR)	Cindi Kinder, WFLHD
Mark Mitts, OZAR	Jim Roller, CFLHD
Bob Dunkley, GLAC	Alan Teikari, EFLHD
Joe Helmkamp, DSC	Butch Wlaschin, FLHO (until 6/97)
Dave Hammers, NCR	Paul Schneider, FLHO (since 7/97)
Dave Keough, RMSO	
Simon Tran-M-Trung, SER	
Dave Kruse,** PGSO	
Val Knight, SER	
Mark Hartsoe, WASO	

* Task Group Chair - 1996

** Task Group Chair - 1997

Appendix D
CBA Factors And Prompts

Objective 1. Protect Cultural or Natural Resources.

⇒ Factor: How will this project eliminate threats to resources?
⇒ Factor: How will this project provide treatment for resources?
Additional PRP prompts: Would the project improve the condition of historic properties (roads, walls etc.)? Would the project reduce negative effects of a road on a sensitive resource, wild and scenic river, threatened or endangered species etc.?

Objective 2. Provide for Visitor Enjoyment.

⇒ Factor: How will this project provide visitor services, educational and recreational opportunities?
Additional PRP prompts: If the road or bridge deteriorates to the point of closure or restrictions on vehicles, what will the effect be on the visitor experience? Numbers of present visitors? % of visitors to a given Park using this route? Are alternate routes available?
Additional PRP prompts: Will the project effect aesthetics, relieve traffic congestion, or enhance access to park resources?
⇒ Factor: How will this project protect public health, safety, and welfare?
Additional PRP prompts: Will the project reduce the number and, or severity of accidents? Present accident rates? Will the project improve air quality?

Objective 3. Improve efficiency of park operations.

⇒ Factor: How will this project improve operational efficiency and sustainability?
Additional PRP prompts: Will the project reduce maintenance workload, expenditures or improve the maintainability of the road? Actual costs?
⇒ Factor: How will this project protect employee health, safety, and welfare?
Additional PRP prompts: Will the project reduce risks to Park personnel working on, or driving on road? Will law enforcement problems be reduced?

Objective 4. Provide cost-effective, environmentally responsible, and otherwise beneficial development for the National park System.

⇒ Factor: How will this project provide other advantages to the National park System?

Appendix E
FLHP PRP Eligibility List

June 14, 1995

FEDERAL HIGHWAY ADMINISTRATION GUIDANCE ON PARK ROADS AND PARKWAYS PROGRAM

GUIDANCE:
The following updates the July 19, 1983, list of eligible PRP program items. The list identifies items that may be funded, items that generally will not be funded, and items that will not be funded under the PRP program category. Funding for some items will be jointly determined by NPS and FHWA based on overall relative PRP program priorities.

PRP ITEMS THAT MAY BE FUNDED

Project Support Items:

- Transportation planning, including planning for tourism and recreational travel that benefits recreational development.
- Research part of coordinated technology implementation program (CTIP).
- Traffic engineering and safety studies.
- Identification and surveillance of accident locations.
- Development of road and bridge standards.
- Bridge, pavement, and safety management.
- Selected preliminary engineering studies.
- Necessary interagency program/project formulation meetings.
- Interagency program review meetings (per interagency agreement).
- Necessary environmental studies and archeological investigation confined to the general roadway construction limits.
- Necessary architectural and landscape engineering services.
- Engineering design for roads and bridges.
- Necessary interagency project coordination.
- Project-related revegetation.
- Construction engineering for contract administration, inspection and testing.

June 14, 1995

FEDERAL HIGHWAY ADMINISTRATION GUIDANCE ON PARK ROADS AND PARKWAYS PROGRAM

Construction and Improvements Items:

- Engineered pavement overlays that add structural value, design life or improved skid resistance.
- Double bituminous surface treatments and chip seals that are part of predefined stage construction or form final surface on low volume roads.
- Engineered rehabilitation or reconstruction of pavement structures, bridges and bridge decks, and tunnels.
- Engineered spot safety improvements resulting from safety studies.
- Upgrading of substandard traffic barriers and bridge rails to current standards.
- Replacement of nonstandard traffic regulatory and guide signs.
- Upgrading substandard or nonconforming traffic markings (one time only).
- Park entrance signs if the sign conforms to park standards, is in a safe location, is part of an adjacent park road project, and is of reasonable cost ($10,000 maximum).
- Accommodating traffic and pedestrians through construction zones.
- Public approach roads and interchange ramps that are under the jurisdiction and responsibility of the NPS.
- Installation of warranted roadway lighting.
- Adjustment of utilities directly related to roadway work.
- Conduits crossing under the roadway to accommodate future planned utilities.
- Landscaping and seeding of areas disturbed by PRP road construction.
- Landscaping required to meet Environmental Impact Study (EIS) mitigation measures resulting from roadway construction.
- Construction of erosion control and environmental mitigation measures directly related to roadway construction.
- Experimental features where there is a planned monitoring evaluation schedule.
- Public parking lots or pull-offs to trail heads, interpretive areas, public lodging, visitor center, (including necessary supporting retaining walls, protective railings and adjacent perimeter sidewalk).
- Provisions for pedestrians within/adjacent to roadway prism when warranted for safety reasons.
- Restoration of borrow pits created by projects funded from the PRP program.
- Force account and day labor, including materials and equipment rental, being performed in accordance with approved plans and specifications, that has been determined to be cost-effective (public interest).

June 14, 1995

FEDERAL HIGHWAY ADMINISTRATION GUIDANCE ON PARK ROADS AND PARKWAYS PROGRAM

ITEMS THAT WILL NOT BE FUNDED

Project Support Items:

- General park planning.
- Non-program specific conferences, field trips, or training conferences.
- Archeological investigations and work outside roadway construction limits.

Construction or Improvements Items:

- Construction of campground roads and related parking pads (Reference NPS 3/28/89 Memorandum for relative PRP program priority funding).
- Cyclic roadway maintenance work including chip and slurry seals (seal coats), pavement patching, shoulder and ditch grading, cleaning culverts, snow removal, roadside mowing, normal sign repair and traffic markings.
- Seal coats on top of new asphalt concrete pavements.
- Cyclic bridge maintenance work including cleaning and repairing bridge joints, cleaning and repairing bridge drainage, and repairing other bridge appurtenances.
- Landscaping and irrigation systems of areas not disturbed by PRP road construction.
- Utilities and buildings not disturbed by construction.
- Sanitation facilities not disturbed by construction.
- Walls and erosion protection that are not part of or support the roadway prism.
- Recreational boat launching facilities and ramps.
- General park development project.
- Park road that serves only an administrative site such as park housing, maintenance areas, or park dormitory (or a combination of these).
- Park road that provides access to Park Headquarters which is not open to the general public (i.e., not a visitor center).
- Restoration of borrow pits (or portions of borrow pits)created by projects funded with non-PRP program funds.
- Repairs to or replacement of fences not disturbed by PRP road construction.
- Fences constructed for aesthetics.

June 14, 1995

FEDERAL HIGHWAY ADMINISTRATION GUIDANCE ON PARK ROADS AND PARKWAYS PROGRAM

FUNDING WILL GENERALLY NOT BE MADE AVAILABLE FOR THE FOLLOWING ITEMS: (Funding will be determined on a case-by-case exception basis taking into consideration overall relative PRP program priorities)

Project Support Items:

- Acquisition of necessary scenic easements and scenic or historic sites.

Construction of Improvements Items:

- Special use tram roads if in lieu of constructing 1 2-lane public road and additional parking lots.
- Bike paths, unless they are part of the park's approved General Management Plan (GMP), constructed in conjunction with PRP projects, and are:
    - part of a roadway prism necessary for safety reasons and if bike traffic warrants.
    - independent paths used for transportation and safety reasons based on accident and traffic data analysis.
- Interpretive signage part of a roadway project.
- Construction of visitor information centers and related items.
- Construction of roadside rest area including sanitary and water facilities.
- Bridge painting work on structures (painting of major large structures considered on a case-by-case exception basis).
- Other public roads which provide access to areas under the jurisdiction and responsibility of the NPS.

Appendix F
Government Performance And Results Act (GPRA) And Its Relationship to PRP

In the 1994, the FHWA in consultation with the NPS, prepared a pilot Government Performance and Results Act (GPRA) plan for the FLHP program which included PRP program. Four activities were specifically targeted for measurement toward this plan. These activities and the measurements are:

A. Condition of Paved Roads as measured by the Road Inventory Program (RIP).

B. Condition of Bridges as measured by the Bridge Inventory Program (BIP).

C. Customer Satisfaction of Completed Projects as measured by a customer survey.

D. Program Funds Used to Fund Construction Projects as measured by the percentage of program funds for construction verses non-construction (such as planning, environmental compliance, administration, etc.)

In addition to the GRPA Plan developed by the FHWA, the NPS has developed its own Strategic Plan to meet the requirements of GPRA. The following goals are expressed in the format of the NPS Strategic Plan applicable to the PRP:

GOAL CATEGORY I: PRESERVE PARK RESOURCES
Park road and transportation systems are maintained and developed with sensitivity to the natural and cultural resources.

GOAL CATEGORY II: PROVIDE FOR THE PUBLIC ENJOYMENT AND VISITOR EXPERIENCE OF PARKS
Visitors travel safely and efficiently on park roads. Park visitors have a quality driving experience. Park roads are developed and maintained to improve access to and within parks.

GOAL CATEGORY IV: ENSURE ORGANIZATIONAL EFFECTIVENESS
Develop a stable, long range program that addresses the needs of the park road system and promotes organizational efficiency. (This goal reflects efforts to improve management processes and reduce program project development costs plus the government wide goal to push decisions to lowest levels.)

Develop alternative transportation systems that demonstrate and promote sustainable practices. (This goal applies at program funding levels in excess of $120 million.)

Appendix G
FHWA/NPS Interagency Agreement

INTERAGENCY AGREEMENT
BETWEEN
THE NATIONAL PARK SERVICE
AND
THE FEDERAL HIGHWAY ADMINISTRATION
RELATING TO PARK ROADS AND PARKWAYS
#IA-0610-3-8002

Whereas, the Department of the Interior, acting through the National Park Service, in fulfillment of its statutory responsibilities under the Act of August 25, 1916 (39 Stat. 535), as amended and supplemented, including the Acts of April 9, 1924 (43 Stat. 90), January 31, 1931 (46 Stat. 1053), and March 4, 1931 (46 Stat. 1570), as amended, must engage in a continuing program of planning, programming, construction, reconstruction, and improvement of park roads and parkways, including bridges, tunnels and appurtenances, in connection with the administration of the National Park System; and

Whereas, §126 of the Surface Transportation Assistance Act of 1982 Pub. L. No. 97-424, (96 Stat. 2097) amended 23 U.S.C. 204 and repealed 23 U.S.C. 206, 207, 208, 209, and 214(c), and in lieu thereof established a Federal Lands Highways Program, placing on the Secretary of Transportation the oversight and coordinating responsibility for Federal Lands Highways to ensure that such highways are treated under similar, uniform policies as established pursuant to 23 U.S.C., including conformity to highway design, construction, maintenance, and safety standards adopted for park roads and parkways as required under 23 U.S.C. 402 (23 CFR 1230); and

Whereas, §126 of Pub. L. No. 97-424 also amended 23 U.S.C. 202 to authorize the Secretary of Transportation to allocate sums each fiscal year from monies authorized to be appropriated from the Highway Trust Fund for carrying out work involved with the administration, planning, engineering, and construction of new park roads and parkways, and for improvements on existing park roads and parkways, and correction of identified safety hazards; and

Whereas, 23 U.S.C. 202(d), as amended, provides that sums authorized to be appropriated shall be allocated by the Secretary of Transportation for each such fiscal year for park roads and parkways, each according to the relative needs of the various elements of the National Park System taking into consideration the need for access as identified through land use planning and the impact of such planning on existing transportation facilities; and

Whereas, 23 U.S.C. 204(b), as amended, provides that funds available for park roads and parkways shall be used to pay for the cost of construction and improvement thereof; and

Whereas, 23 U.S.C. 204(f), as amended, provides that all appropriations for the construction and improvement of park roads and parkways shall be administered in conformity with regulations and agreements jointly approved by the Secretary of Transportation and the Secretary of the Interior:

Now, therefore, the National Park Service (NPS) and the Federal Highway Administration (FHWA) do hereby mutually agree as follows:

I. GENERAL

It is mutually recognized that:

A. The NPS is responsible for the protection and management of lands and resources under its jurisdiction, and is vitally interested in the development of a public park roads system which will provide access for the protection, use and enjoyment of National Park System areas and which will integrate with other transportation facilities.

B. The NPS shall develop park road and parkway design, construction, maintenance, and safety standards in accordance with 23 U.S.C. 402 (23 CFR 1230).

C. The NPS shall carry out a transportation planning process for park roads and parkways to the extent deemed adequate to support the construction and improvement program, similar to those of 23 U.S.C. 307 and 16 U.S.C. 17(k), and in accordance with applicable NPS guidelines.

D. The NPS shall develop and submit annually to FHWA a priority program of proposed Federal Lands Highways Program projects for approval and allocation of the sums authorized.

E. The NPS and FHWA shall jointly determine respective responsibility for execution of the approved program.

F. All construction activities shall be conducted and executed so as to minimize impact of the project on park operations. Wherever feasible, construction activities shall avoid peak visitation periods, and where infeasible, appropriate steps shall be taken to minimize impacts on park operations. The NPS Regional Director and Superintendent shall be informed of the planned construction schedule, the actual schedule, and any changes in the schedule as they become apparent.

To the fullest extent possible, and in the interest of avoiding duplication of services and costs, and in accordance with the provisions of §601 of the Act o June 30, 1932.

G. (47 Stat. 417), and Section I of the Act of August 27, 1958 (72 Stat. 914), and unless otherwise provided: It is understood and agreed that the FHWA shall be available to perform planning assistance, research, engineering studies, traffic engineering services, project development, and construction contract administration. The FHWA shall ensure that the performance of such work shall be generally in conformance with similar established policies of 23 U.S.C. The NPS shall be responsible for providing architectural and landscape architectural services to ensure that the highest standards of aesthetics and resource protection and followed in the placement of road prisms and the design of structures appurtenant to park roads and parkways.

II. ROLES AND RESPONSIBILITIES

A. Based upon the NPS's approved program of projects, NPS and FHWA shall jointly agree on a division of program responsibility and will provide the supervision for carrying out the project execution as herein defined.

B. For those activities and projects NPS requests FHWA to undertake, the FHWA will:

1. Perform planning and engineering studies, inventories, investigations, reconnaissance surveys, or other studies with the participation of the NPS for review and concurrence.

2. Undertake the preparation of plans, specifications, and detailed cost estimates, which shall be submitted for approval to the NPS Regional director, who shall retain basic responsibility for all projects, including preliminary and final design approval. FHWA and NPS shall collaborate and cooperate to assure that the plans and specifications conform to park management plans and accommodate NPS aesthetic and environmental and cultural resource protection considerations for the particular park or proposal. The NPS will be the lead agency responsible for the preparation of environmental documents for the proposed project, including the public notifications and involvement process, with FHWA participating as a cooperating agency. As determined appropriate on a project-by-project basis, NEPA documents will be subject to

3. Advertise, award, and administer the contract for the construction of the project in conformity with the approved plans and specifications.

4. Ensure that proposed changes to contract plans or specifications shall have the concurrence of the NPS Regional Director before adoption, and that all proposed changes affecting program priorities shall have the approval of the NPS Director and FHWA Headquarters.

5. Furnish project status reports to the NPS Regional Director and NPA Headquarters as may be required and afford NPS the opportunity to participate in project inspections, including final inspection. The NPS shall furnish written recommendations to FHWA for project acceptance. The FHWA shall have the concurrence of the NPS Regional Director prior to FHWA's acceptance and final payment to the contractor.

6. Upon completion and acceptance of each contract, furnish to NPS a final construction report, including final cost data and as-constructed plans.

7. Be responsible for all payments to contractors, and for any services of a State or civil subdivision thereof which are performed under the responsibility of FHWA, as outlined in this section.

C. For those activities and projects undertaken by NPS, the NPS will:

1. Perform the required planning, environmental, public notification process, engineering, architectural, and landscape architectural services needed for each project.

2. Advertise, award and administer the contracts in conformance with the approved plans and specifications.

3. Furnish appropriate project status reports and technical documents to the FHWA as may be required.

4. Ensure that proposed changes to contract plans or specifications shall have the concurrence of the NPS Regional Director before adoption, and that all proposed changes affecting program priorities shall have the approval of the NPS Director and, for the Federal Lands Highways Program, FHWA Headquarters.

5. Be responsible for all payments to contractors, and for any services of a State or civil subdivision thereof which are undertake for the NPS.

D. Funding and reporting:

1. For funding the projects of the Federal Lands Highways Program being undertaken by the NPS: (a) FHWA shall transfer obligational (contract) authority to NPS by means of an allocation letter; (b) NPS requests for cash shall be in writing and addressed to the Chief, Finance Division, FHWA; (c) FHWA will transfer liquidating cash to NPS to meet current expenditure needs; and (d) direct or indirect overhead charges shall be jointly agreed upon.

2. NPS shall furnish reports for the portion of the Federal Lands Highways Program undertaken by NPS including: (a) monthly SF-133, Report on Budget Execution,

reflecting specific financial and budget data for each different type of allocation and overall summary by Treasury Symbol; (b) annual TFS-2108, Year-End Closing Statement; (c) monthly report of total obligation and expenditures for each project; (d) annual obligation and expenditures for each project including planning and research, engineering and special studies, preparation of plans-specifications and estimates, construction contract administration and inspection costs, contract payments, and any direct or indirect overhead charges; and (e) other reports as may be required.

3. For non-Federal-Lands-Highways-Program road and bridge projects funded directly under NPS authorities through Department of the Interior appropriations: (a) NPS and FHWA shall determine program responsibility on a project-by-project basis; (b) funds shall be transferred by NPS to FHWA for projects for which FHWA shall have program responsibility; and (c) for projects to be contracted for by NPS and administered by FHWA, cash shall be transferred to FHWA to provide for payment.

4. FHWA shall furnish reports for the portion of NPS funded projects undertaken by FHWA including: (a) monthly SF-133, Report on Budget Execution, reflecting specific financial and budget data for each different type of allocation and overall summary by Treasury symbol; (b) annual TFS-2108, Year-End Closing Statement; (c) monthly report of total obligation and expenditures for each project; (d) annual obligation and expenditures for each project including planning and research, engineering and special studies, preparation of plans-specification and estimates, construction administration and inspection costs, contract payments, and any direct or indirect overhead charges; and (e) other reports as may be required.

E. General responsibilities are as follows:

1. The NPS and the FHWA shall exchange information in connection with any claims or litigation arising as the result of or in connection with a project. When the NPS is the Contracting Officer, the Department of the Interior Board of Contract Appeals shall have jurisdiction. When FHWA is the Contracting Officer, the Department of Transportation Contract Appeals Board shall have jurisdiction.

2. All requests for FHWA technical assistance on projects being developed by NPS shall be in writing from the appropriate NPS Regional Director to the appropriate FHWA Direct Federal Division Engineer.

3. The design and construction of projects will be in accord with applicable provisions of 23 U.S.C.; applicable FHWA and NPS statutes, regulations and agency procedures; NPS design standards for park roads and parkways; and applicable portions of the latest edition of the Standard Specifications for Construction of Roads and Bridges on Federal Highway Projects.

4. Right-of-way, railroad agreement, and utility adjustment matters will be the responsibility of the NPS, unless otherwise agreed upon with respect to a particular project.

5. The NPS will maintain and operate park roads and parkways in accordance with adopted NPS standards pursuant to 23 U.S.C.

6. Inter-agency program and policy review conferences shall be conducted as necessary. Information for such conferences will include the following:

a. The NPS will provide:

1) A priority list of proposed Federal Lands Highways Program projects (with supporting data) that will best meet its management and transportation needs based on short-term and long-range objectives.

2) Status reports on transportation planning activities related to park management plans.

3) Recommendations for long-range transportation needs and procedural changes.

4) Identification of special needs for planning, engineering studies, research, and design necessary to undertake the program.

b. The FHWA will provide:

1) The latest information on available financing and its effects on the proposed program.

2) The status of existing projects, activities, and supporting information required in analyzing and reviewing future programs.

7. Following the program and policy review conference, and upon written request from NPS, the FHWA will approve the program of Federal Lands Highways Program projects or changes thereto and allocate the funds authorized. Necessary program changes and modifications in the Federal Lands Highways Program as proposed by NPS shall be submitted to FHWA for reprogram approval.

8. The FHWA shall be responsible for presenting budget and program information regarding the Federal Lands Highways program to the Congress as required. The NPS and FHWA will cooperate in collecting information and preparing reports as may be required.

III. SUMMARY

A. This agreement is not intended to fix procedures to be followed so rigidly as to prevent logical and practical actions by the agencies, but rather to formulate a general, uniform procedure, as required by 23 U.S.C. 204, applicable to the implementation of the park roads and parkways program.

B. FHWA and NPS personnel are encouraged to consult with each other during the various phases of program development and implementation and to agree on such matters as appropriate which fall within their respective jurisdictions and responsibilities. Matters which require consideration at higher levels should be referred to appropriate offices within each agency.

C. Respective FHWA Direct Federal Divisions and NPS Regional Offices may enter into such supplementary or ancillary regional agreements as may be appropriate and mutually agreed to regarding details of planning procedures and implementation of the approved program; provided, however, that any such regional agreements shall be deemed valid only if and to the extent they are in conformity with this agreement and applicable laws and regulations, and no such regional agreement shall be deemed to supersede this agreement in any manner whatsoever.

D. This agreement shall become effective on the date of the last approving signature. Renegotiation of this agreement or any part thereof shall be by mutual concurrence in writing.

APPROVED:

Signed, Mary Lou Grier — May 3, 1983
Acting Director, National Park Service — Date

Signed, Ray Barnhart — May 19, 1983
Federal Highway Administration — Date

Attachment H
Supplemental Instructions
Development Package Proposals
Federal Lands Highway Program, Park Roads and Parkways
Project Call For FY 2000 Projects

Introduction

These are supplemental instructions for preparing or revising a project proposal (formerly known as Form 10-238, *Development/Study Package Proposal*) for projects seeking funding for FY 2000 through the National Park Service (NPS) Federal Lands Highway Program (FLHP). In 1997, the NPS adopted revised procedures for the FLHP Park Road and Parkway Program (PRPP).

Among the changes which have taken place within the FLHP is that as of FY 2000 rehabilitation (3-R) type projects will no longer be prioritized at the Servicewide level. Regions 3-R projects will be coordinated and managed using Servicewide criteria specific for 3-R projects. Regions, however, will continue to submit their annual and multi-year 3-R project list to WASO for review and allocation or funds. .

Servicewide 4-R projects, Congressional authorized parkways and alternative transportation systems projects will be prioritized on a Servicewide basis and are the subject of these instructions. These types of projects will be ranked using a Choosing by Advantages (CBA) process similar to that used for the past two years for the NPS line item program. The prioritization process is based upon the development strategies listed below:

> *Every construction project should enhance the national park system through significant improvement in **resource protection**, **visitor experience**, and/or **park operations**.*
>
> *Every construction project should use the most **cost-effective** and **environmentally responsible** means possible to accomplish the project objectives.*

Individuals who are preparing or evaluating project proposals should be familiar with the direction contained in the line item strategy paper. To obtain a copy, send a cc:Mail message to the NPS Line Item Construction@ mailbox and include the phrase Servicewide Development Strategy@ in the subject line.

All projects for the FY 2000 FLHP project call must be submitted using the electronic format Future Projects Management Software program. The electronic forms will allow the service to begin developing an electronic database that will help better document and analyze future NPS road and bridge construction needs.

The new project submission process requires different and higher quality of information than has typically been submitted. How you present this information will affect the rating your project receives. These instructions supplement the instructions contained in Guidelines NPS-2, *Park Planning*, and NPS-8, *Budget and Programming*. They will help you prepare a complete package to ensure that your project receives full consideration in the new process. The most important thing to remember as you prepare, review, or revise project packages is that *each proposal form should clearly* ***describe the difference the project will make*** *in meeting program objectives and park goals by comparing* ***management of the park without the project versus with the project completed***.

Overview of the Project Selection Process

Step 1. Parks will prepare a complete, updated package for each proposed project using Future Projects Management Software Program, and submit the projects for consideration to their respective Regional Office.

Step 2. Each Region will sort the Park submissions to identify 4-R, Congressional authorized parkways and alternative transportation systems project categories.

Step 3. Prior to the submission to WASO of the proposed 4-R, Congressionally authorized parkways and alternative transportation systems projects for Servicewide prioritization, each cost estimate shall be reviewed for accuracy by the Denver Service Center (DSC) and/or Federal Lands Highway Division (FLHD). In order to facilitate this review, a map, video or photos of the roadway will likely be required by the FLHD estimators. It is the responsibility of each Region to ensure that the estimates are reviewed and signed off by DSC or FLHD prior to the submission deadline. FLHD must sign off on estimates for all projects to be administered by FHWA.

Step 4. A servicewide project assessment team will meet in WASO after the Regions submissions are received to review, rate and rank the Region packages. The team will evaluate proposed projects based on a series of factors (described below) drawn directly from the program objectives for line-item construction and modified to be more applicable to the Park Roads and Parkways Program. This team will produce a recommended servicewide priority ranking list for all projects for submission to an executive FLHP advisory board.

Step 5. A FLHP executive advisory board made up of Servicewide representatives will review and ratify the recommendations of the project assessment team. The adopted Servicewide priorities will be used to allocate advance planning and design funds in FY 1998 and FY 1999 and construction funds in FY 2000.

Forms to Use

Proposals will be submitted by Regions using the Future Projects Management Software Program. No other format submissions will be accepted. A maximum of two 8- ½x 11'' pages with graphic images for each project may be submitted. The graphic images may include 4''x 6'' photo prints, maps, diagrams etc. Keep in mind that these pages will be photocopied several times and that the images should be suitable for that type of reproduction.

Criteria for Package Proposals

Proposed projects must meet the FLHP eligibility criteria (see Attachment E). Each p*roject's construction cost minimum should be* ***$400,000 with a ceiling on maximum project cost of $10 million.*** *All* ***projects must be in conformance with the park's approved general management plan*** *as well as* ***other park planning and policy documents****, including servicewide guidelines and directives.*

FY 1998 and 1999 projects will be grandfathered using the old Servicewide Priorities.

A package should be functionally complete, reasonable to execute, and limited to the smallest appropriate geographic area. All projects must be open to the public upon completion. The purpose of the project and the rationale used to define the package should be clearly described. Large undefined projects (also known as super packages, such as, Reconstruct Roads - Parkwide are no longer considered acceptable and will not be considered for prioritization.

Cost Estimates

A 1998 net construction cost must be provided for each project proposal. Cost estimates should be Class C or better, as defined in Guideline NPS-8, *Budget and Programming or Federal Lands Highway(FLH) cost guidelines*. A class C estimating guide and other assistance in preparing cost estimates is available through DSC or FLHD. Projects must be reviewed for accuracy by the regions with the aid of DSC and/or FLHD.

The cost estimates will be used in the project selection process to prepare an advantage score/cost ratio for each proposal. *The* ***full costs*** *of a development proposal,* ***regardless of funding source****, must be described and considered during project selection* to ensure equitable, appropriate priority decisions. For projects involving cost sharing or donated funds, this means that the full cost of a project must be included in the package, along with the breakdown funding sources. A more detailed discussion of the rationale for this requirement can be found below under Cost Sharing and Donated Funds.

Project estimates must be submitted as net construction cost estimates. A net estimate must include all the anticipated costs of the actual construction work on the ground. It does not include the costs of planning, compliance, revegetation planning, surveys, design, contract supervision, or contract contingencies. Cost for on the ground work typically includes the cost of all elements to be constructed or which would be in a construction contract (i.e., traffic control, signage) as well as costs for actual revegetation, erosion control, landscape plantings, or mitigation plantings etc. A good rule of thumb is that if the work effort results in real improvements or changes occurring on the ground then it is net construction.

In order to compete well, proposals and their resulting estimates should reflect the least cost necessary to achieve the project purpose based on the results of similar projects. However, cost estimates should not be reduced simply to make a project more competitive. All estimates will be reviewed by expert estimators and, if necessary, leveled by using common cost data and estimating methods.

Projects will be required to be completed within the initial cost estimate. Therefore it is not in a Park or Regions best interest to low ball the initial proposal cost estimate, as that could cause the project to be dropped from further consideration during the design process, if the cost escalates significantly beyond the original estimate. Projects will be reviewed during the design process to validate the advantage score/cost ratio that caused them to be placed on the servicewide priority list. Projects that show reduced benefits or increased costs may be returned for redesign or simply canceled if the advisory board believes they no longer represent the best use of the limited funds for the benefit of the national park system. *Funding of a project for advance planning and design does not guarantee funding for construction regardless of subsequent changes in scope and cost*.

When preparing cost estimates separate, specific information must be provided on the component items or elements of the project including quantities and unit costs for each element whenever possible. As a general guide, you should provide separate cost information for each item that you mention in the project description. For example, construct a transit orientation and loading center, including utility connections, a parking lot, access drive and landscaping, should translate into an estimate with separate components and costs for a 4,000-square-foot building, 10,000 linear feet of water distribution line, 15,000 linear feet of wastewater line, a 300-car parking lot, 6 acres of landscaping and site work, and 1,000 linear feet of 24 foot wide paved access road. Unit costs for each of these items are available in the Class C estimating guide.

Priority-Setting Process

A project assessment team will evaluate the top half of projects proposed by the field using the Choosing by Advantages method. This method has been used for the NPS line item program for the past two years. This method analyzes the relative advantages of each project in accomplishing the NLC-approved program objectives for construction projects. The team members will be selected based on a variety of organizational and professional experience criteria with the overall objective of convening a group whose collective knowledge covers the full range of resources, issues, and functions involved in managing the national park system. Each of the seven NPS Regions will have one

representative on the team. The team will meet after the submissions are received to rate and rank projects based on a set of factors, described in the next section, drawn directly from the NLC program objectives. They will develop recommended Servicewide priorities for construction funding.

To understand what information needs to be included in the project narrative, it may be helpful to know how the assessment team will use the forms to develop their recommendations. Keep in mind that some of the team members will be familiar with your park, but others will depend solely on the forms to make judgments about your project.

This process, in outline form, is as follows:

Step 1. The team will review all information to extract data pertaining to each of the projects in each of the factors listed below. By comparing and discussing the advantages of each proposed project in each of the factors, the assessment team will develop a consensus ranking of the most important project advantages within each of the factors.

Step 2. The team will review the highest-ranked project advantages within each factor and compare and discuss the importance of these project advantages in achieving the objectives of the FLHP construction program. The team will develop a consensus ranking of the top project advantages based on their overall importance across the factors.

Step 3. The team will translate the rankings into a numerical scoring scale for each factor. The factor scales will then be applied to each project to arrive at an individual factor score for each project. Finally, the scored benefits of each project will be totaled. This will produce a total benefit score for each project based on the total importance of the projects advantages in achieving Servicewide objectives as reflected in the factors.

Step 4. After the project assessment team determines the total benefit scores, the projects will be listed in order of their relative scores. A minimum score level will be established and only projects which score higher than the minimum will be considered for funding. The Project Assessment Team will determine where to establish that minimum threshold score. The projects which are above the minimum score may then be grouped into several cost bands. Within each of these cost bands the projects with the highest scoring advantage score/cost ratio will be considered for funding first. The Project Assessment Team will recommend cost bands as part of their final recommendations.

For example, Project A, the one with the highest total benefit score from step 3, could also have a very high net cost compared to other projects, say $10 million. Projects B, C, D. E, and F could, individually, have lower total benefit scores than Project A and could collectively cost the same $10 million amount as Project A. The collective total benefit scores of Projects B, C, D, E, and F could far exceed the individual total benefit score of Project A. In this case, the team would probably decide to recommend Projects B, C, D, E, and F as higher priorities than Project A on the grounds that, in total, they represent the same amount of cost but provide much more benefit to the system as a whole.

To aid in identifying the best selection of projects during this step, the team will develop a benefit/cost ratio for each project by dividing the total benefit score, determined in step 3, by the estimated net construction cost. Typically, a project that receives a large total benefit score and has a low construction cost compared to other projects will have a high benefit/cost ratio and will be high in the priority ranking. Conversely, a project that receives a small total benefit score and has high construction costs compared to other projects will have a low benefit/cost ratio and will be low in the priority ranking.

Project Objectives and Selection Factors

Each development proposal considered for the Servicewide priority list will be evaluated and compared to other proposals based on the benefits it provides to the national park system as reflected in the objectives and selection factors described in this section. Much of the process will focus on comparing differences and relative advantages among projects. However, it will be essential for the project assessment team to understand the importance of these differences and advantages in the context of accomplishing the purpose of the park and ultimately of achieving the mission of the National Park Service. Therefore, *your proposal should include a current* ***description of the park purpose*** *and a* ***statement of significance*** *for the park's resources*, in the appropriate narrative section of Form 10-238C.

With this basic information in mind, *each proposal form should clearly* ***describe the difference the project will make*** *in addressing the items below by* ***comparing management of the park WITHOUT the project versus WITH the project completed.*** In other words, what is the current situation and what will the situation be after the construction of the proposed project? How will the park be changed? The answers to these questions will help assessment team members to understand the advantages of your proposal, so they should be presented clearly and completely. This approach should be used to answer the eight basic questions about the project listed below.

Objective: **Protect cultural and natural resources**
- Factor: How will this project **prevent the loss of resources**?
- Factor: How will this project **maintain or improve the condition of resources**?

Objective: **Provide for visitor enjoyment**
- Factor: How will this project **provide visitor services and educational and recreational opportunities**?
- Factor: How will this project **protect public health, safety, and welfare**?

Objective: **Improve efficiency of park operations**
- Factor: How will this project **improve operational efficiency and sustainability**?
- Factor: How will this project **protect employee health, safety, and welfare**?

Objective: **Provide cost-effective, environmentally responsible, and otherwise beneficial development for the national park system**

Factor: How will this project **provide other advantages to the national park system**?

Project Attributes and Advantages

Since the factors contained in the questions above are rather broad, the project assessment team will identified some attributes and advantages of projects that should be addressed in the proposal. Questions designed to elicit information about these attributes and advantages are listed under the objective and factor headings below. Please use them to ensure that your proposal is complete. For the project to receive full consideration, *your answers should* ***be clear, specific, and succinct***. The team also offers the following suggestions and observations to ensure full consideration of your proposal:

Use bullets for responses rather than flowery prose.

Relate attributes and **advantages to specific elements** of the project whenever possible.

Quantify attributes and advantages whenever possible (# of lane miles paved, bridge square footage, bridge length and width, Federal Highway Administration s bridge rating, # of visitors affected, vehicle miles traveled, Traffic accidents and severity, pavement condition, # of FTE saved, $ saved, etc.).

Quantify the existing situation to show the magnitude of the attributes and advantages of the proposal (When comparing one project to another, percentages are meaningless without the numbers that produced them).

No response gets **no score for** that factor, but **irrelevant responses and tortured logic** will get the same treatment (In other words: Skip the BS! The team members have written it themselves so they know it when they see it.).

OBJECTIVE: PROTECT CULTURAL AND NATURAL RESOURCES

Provide the following general information on the natural and cultural resources addressed or affected by the development proposal. *Please do not repeat this information in responses under the next two factors.*

* What is (are) the nature, extent, quantity, and complexity of the resource(s) effected (e.g., specific species, watershed, ecosystem, archeological resources, cultural landscape, historic structures, museum objects, ethnographic resources, etc.)?

* What is the significance (local, state, regional, national) of the resource(s), including any special designation(s) (e.g., wilderness, World Heritage site, National Natural Landmark, Biosphere Reserve, federally listed threatened or endangered species, National Historic Landmark, listed on National Register of Historic Places, etc.)?

* How is (are) the resource(s) comparable to others in the region or National Park System either ecologically or in cultural associations?

* What policy or legal mandates or park goals for resources management are related to the resource(s)?

* Projects typically disrupt resources in order to provide visitor service (widening, realignment, etc.). Describe impacts to resources and mitigation of impacts.

Factor: Prevent the loss of resources (e.g., stabilization)

* What is the specific threat to the resource(s)?

* What will result if the threat is not eliminated?

* What is the immediacy or timeframe of the threat?

* What is the probability that the resource(s) will be lost?

* Upon what information or authority have these predictions been made?

Factor: Maintain or improve the condition of resources

* What is the current condition of the resource(s)?

* How will the proposed project affect the condition of the resource(s) (e.g., species or ecosystem restoration, disturbed land restoration and revegetation, of an archeological site, rehabilitation or restoration of a historic structure?

OBJECTIVE: PROVIDE FOR VISITOR ENJOYMENT

Provide the following general information on the visitor experience(s) addressed or affected by the development proposal. *Please do not repeat this information in responses under the next two factors.*

* What is the nature, extent, and complexity of current visitor use (e.g., type and mix of traffic, traffic volumes, measures of congestion, park and/or subarea visitation -- annual total as well as average peak-season day, type and nature of access to park and/or subarea, available park facilities and services, available educational and recreational opportunities, type and nature of visitor activities, availability of alternative facilities and services outside the park, etc.)?

* How is visitor use expected to change without the project (e.g., projected visitation, new use trends or activities, etc.)? Upon what information or authority have these predictions been made?

* What is the significance of the visitor experience? How does it compare to others in the region or national park system?

* What policies, legal mandates, and/or park goals for visitor enjoyment are related to the proposal (e.g., approved plans, agreements with other entities, environmental deficiencies, code violations, regulatory actions, court orders, etc.)?

Factor: Provide visitor services and educational and recreational opportunities

* What is the current situation regarding visitor facilities (e.g., condition and functional adequacy, current use vs. capacity, long-term sustainability of use, etc.)?

* What is the current situation regarding visitor experience(s) of the park and/or subarea affected by the project (e.g., road and bridge condition, congestion, interpretation and access opportunities, available services and opportunities vs. park goals, visitor satisfaction with services and opportunities, etc.)?

* How will the proposed project change the condition of facilities and/or the visitor experience(s) of the park and/or subarea -- upon completion and in the future (e.g., the type, quality, and availability of services or educational/recreational opportunities; current and projected visitation -- capacity, use patterns, and activities; deficiencies or visitor satisfaction; access to the park or subarea; services and facilities outside the park; etc.)

* How many visitors will be affected by these changes? (e.g., Vehicle Miles Traveled (VMT), Average Daily Traffic (ADT) for the road segment or bridge).

Factor: Protect public health, safety, and welfare

* What is the existing situation with respect to public health, safety, and welfare, especially for park visitors? How many visitors or other members of the public are affected by the existing situation? What would be the result for park visitors and other members of the public if this project was not completed (e.g., tort claims, traffic accident rates and severity)?

* What are the specific risks to public health and/or safety? What is the probability, immediacy, and/or time frame associated with these risks? What would result if the risk is not eliminated? How serious and extensive would the effects be?

* Upon what information or authority have these predictions been made (e.g., safety engineering studies, observations and recommendations)?

* What citations, court orders or other legal direction has the park received based on violation of regulations, codes or other legal standards of health, safety, and welfare?

* How will the proposed project allow the park to meet established standards of health, safety, and welfare? How many visitors or other members of the public would be effected?

* What alternatives have been considered to address these issues without construction (such as closing a given park area), outside the park, or through a non-NPS source (such as another public agency or commercial facility)?

OBJECTIVE: IMPROVE EFFICIENCY OF PARK OPERATIONS

Provide the following general information on the park operations addressed or affected by the development proposal. *Please do not repeat this information in responses under the next two factors.*

* What is the nature, extent, and complexity of the current park and/or subarea operation affected by the project (e.g., new area or established park, existing facilities and services, budget and staffing, locational factors such as remoteness or proximity to alternative facilities and services, etc.)?

* How are park operations expected to change without the project (e.g., new operating methods or practices, projected budget and staffing, scheduled routine maintenance, reduced enforcement needs, reduce response to accidents, scheduled routine maintenance, reduced inforcement needs, reduced response to accidents, etc.)? Upon what information or authority have these predictions been made?

* What policies, legal mandates, or park goals for park operations are related to the project (e.g., approved plans, agreements with other entities, environmental deficiencies, code violations, regulatory actions, court orders, etc.)?

Factor: Improve operational efficiency and sustainability

* What is the existing situation for park and/or subarea operations and facilities (e.g., costs, staffing, energy use, functional adequacy, environmental deficiencies, long-term maintainability and/or sustainability of operations, etc.)?

* How will the proposed project change park and/or subarea operations and facilities -- upon completion and in the future (e.g., costs, staffing, materials required, the quality and availability of services, environmental effects, maintainability, sustainability, etc.). *How much will operational costs and staffing be reduced or increased with the project completed?*

* What alternatives have been considered to provide comparable facilities and services without construction, outside the park, or through a non-NPS source (such as another public agency or commercial facility)?

Factor: Protect employee health, safety, and welfare

* What is the existing situation with respect to employee health, safety, and welfare? How many employees are affected by the existing situation? What would be the result for them if this project is not funded (e.g., road related employee accidents)?

* What are the specific risks to employee health and/or safety? What are the probability, immediacy, and/or time frame associated with these risks? What would result if the risk is not eliminated? How serious and extensive would the effects be?

* Upon what information or authority have these predictions been made?

* What citations, court orders or other legal direction has the park received based on violation of regulations, codes or other legal standards of health, safety, and welfare?

* How will the proposed project allow the park to meet established standards of health, safety, and welfare? How many employees would be effected?

* What alternatives have been considered to provide comparable facilities and services without construction, outside the park, or through a non-NPS source (such as a road or bridge detour with the same capacity and size and weight restrictions)?

OBJECTIVE: PROVIDE COST-EFFECTIVE, ENVIRONMENTALLY RESPONSIBLE, AND OTHERWISE BENEFICIAL DEVELOPMENT FOR THE NATIONAL PARK SYSTEM

The selection process addresses cost effectiveness by using a benefit/cost ratio to compare proposals after their relative advantages have been rated and ranked. The process addresses environmental responsibility by comparing a variety of attributes and advantages within several factors. Cost effectiveness and environmental responsibility are also addressed during planning and design by using value assessments to validate projects (i.e., evaluate whether they will still produce the advantages that caused them to be given high priority, at a reasonable cost). This eighth factor is included primarily to ensure that the process provides a specific opportunity for the project assessment team to discuss any advantages not already included under other factors. Some examples of advantages from previous proposals are provided in the following questions, but should not be considered inclusive. Others may be listed, but ***do not repeat*** *advantages already listed above.*

Factor: Provide other advantages to the national park system

* What other benefits or advantages to the park, the national park system, or other entities, *not addressed in the responses above,* would result from completion of the proposed project?

* How would the project provide continuity with or help obtain maximum benefit from previous PRP construction projects or other capital investments?

* How would the project improve long-term institutional capability to accomplish the park or NPS mission?

* How would the project demonstrate extraordinary organizational leadership or demonstrate innovative approaches that promote conservation and preservation values within and/or beyond the national park system?

* How would the project improve park and/or NPS organizational credibility by fulfilling legal mandates, agreements, or other commitments?

* What benefits or advantages would the project provide to partners, neighbors, communities, or other entities *that are not described above*?

Cost Sharing and Donated Funds

Cost effectiveness does not include cost sharing or the use of donated funds for construction costs as a factor in project selection. One goal of the line-item construction program, as stated by the NLC in the development strategy, is to "Use the construction program to stimulate cost sharing and other innovative approaches to operations and development." However, the NLC also added the cautionary note that we must be careful that the availability of outside funding does not drive our assessment of needs and our decisions regarding priorities." *The **full costs** of a development proposal, **regardless of funding source**, must be described and considered during project selection* to ensure equitable, appropriate priority decisions. For projects involving cost sharing or donated funds, this means that the full cost of a project must be described in the package, along with the breakdown of FLHP and other contributions. If the project is selected and part or all of the construction cost is borne by others, the benefit to the national park system is realized through the ability to fund other, lower-priority projects, but the availability of outside funding would not have unduly influenced our decisions about the importance of the project.

The full benefits of the project, of course, should be included to address the selection factors. This approach will favor appropriate cost sharing, donations, and other partnerships since the real benefits of such arrangements will be reflected in the way the project protects resources, provides visitor experiences, or improves park operations. This certainly would include reduced operational costs or staffing resulting from an efficient partnership. In addition, there will be some flexibility to provide advance planning and design funding or to adjust scheduling of projects on the servicewide priority list

to promote successful completion of partnership projects. These adjustments are most appropriate given the benefits to the national park system that result from being able to fund additional projects.

Project Support Costs

As a further means of reducing overall costs, support costs for FLHP projects will be held to the same limits and conditions that the Service has adopted for Line Item Construction projects, with full consideration being given to all means of reducing costs:

- Planning, design, engineering and other support costs for 4-R projects and new construction will be limited to a maximum of 18% of net construction. Cost which must be limited to within the 18% maximum include Project Types 05, 15, 06, 07, 42, 43 and 26. (Support costs for 3-R work will be limited to 10% of net construction.)

- All projects should incorporate lower cost approaches to Construction Engineering (CE) / Construction Supervision (Project Types 12 and 21) through the consideration of alternatives such as fewer on-site supervisors, circuit riders, etc.

- Construction engineering cost should average 10% for all projects, with a maximum limit of 15%.

- All 4-R, construction and alternate transit projects will be required to have at least on alternate bid schedule which is 10% under the engineer's estimate for the net construction cost of the project (programmed funding amount). Regions should, where appropriate, do the same for their regionally administered 3-R projects.

- Optionally, regions can also require an alternate bid schedule 25% less than the engineer's estimate on both 3-R and 4-R category projects, as in now required for all NPS Line-Item Construction projects.

- Serious reviews should be made of any proposed archeological investigations and compliance in connection with projects with a view to avoiding the problem entirely by avoiding the area in question.

- Reduce travel and per-diem costs wherever possible, e.g. by scheduling meetings with the minimal possible numbers of participants, and at a location where the fewest have to travel, if possible.

- Consider whether A / E's could more cost effectively accomplish the project.

- Charging of base salaries of permanent park staff against FLHP funds or projects is not permitted.

Questions, please contact your regional FLHP Coordinator. Regional FLHP Coordinators, please contact Mr. Lou Delorme, 202-565-1254 or Mr. Mark Hartsoe, 202-565-1265.